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STRUCTURAL AREA INSPECTION FREQUENCY EVALUATION (SAIFE)

Volume V. Results of Model Demonstration

Larry E. Clay Carter J. Dinkeloo Martin S. Moran



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APRIL 1978 FINAL REPORT

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Prepared for

U.S. DEPARTMENT OF TRANSPORTATION

FEDERAL AVIATION ADMINISTRATION

Systems Research & Development Service

Washington, D.C. 20590

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PREFACE

Technology Incorporated prepared this fifth volume of a five-volume report to document the simulation logic for the Structural Area Inspection Frequency Evaluation (SAIFE) in accordance with Article II, paragraph B of Contract DOT-FA74WA-3493. (Volume V along with Volume IV completes the requirements of Phase III of the contract.) The effort is sponsored by the Aircraft Safety and Noise Abatement Division, Systems Research and Development Service of the Federal Aviation Administration.

The principal Technology Incorporated personnel engaged on this program were Mr. Carter J. Dinkeloo, project engineer, who served as principal investigator; Mr. Martin S. Moran, research engineer, who developed the model for the SAIFE computer program; and Mr. Ronald 1. Rockafellow, program manager.

The contract monitors for the FAA were Messrs. Herbert Spicer and Charles Troha of the Aircraft Safety and Noise Abatement Division. The technical monitor was Mr. Arnold B. Anderjaska of the Flight Standards Division.

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1. INTRODUCTION

It is the mutual goal of the FAA, airframe manufacturers, and air carriers to constantly improve the structural integrity and inspection efficiency of civil aircraft. The good safety record of U.S. air carriers indicates that the current process of establishing and modifying structural inspection programs has been successful. However, with the increasing size and complexity of second- and third-generation transport aircraft, there is a need to quantify more precisely the present subjective evaluation process which relies heavily on reliability analyses of the new design and on operational experience of similar aircraft.

Because of the extreme complexity of the evaluation process, a computer simulation of all critical aircraft service life aspects was judged the most rational means for quantifying the process more exactly. As a five-volume document, this report documents the resultant Structural Area Inspection Frequency Evaluation (SAIFE) simulation logic. SAIFE accounts for the following factors: (1) aircraft design analysis; (2) component and full-scale fatigue testing; (3) production, service, and corrosion defects; (4) probability of crack or corrosion detection; and (5) aircraft modification economics. It treats these factors in a logical sequence that realistically represents the procedure currently used to establish and modify inspection intervals. SAIFE is designed to provide a repeatable method for evaluating proposed inspection programs. However, it is not intended to supplant the Maintenance Review Board or the air carrier use of the Standard Operations Specification - Aircraft Maintenance.

As Volume V, this volume presents the results of a SAIFE demonstration, namely, the SAIFE application to a hypothetical aircraft, and compares the results with the service experience of operational aircraft. In this demonstration, all routines and events in the SAIFE program were exercised. The subsequent comparison revealed that the SAIFE output is realistic. The Appendix to this volume presents the results of the parametric study.

11. EVOLUTION OF DEMONSTRATION STAGES

1. Objectives

The SAIFE demonstration was designed to exercise all the events and routines in the software program and to permit determining whether each routine and event would function as intended. To this end, input data was formulated for a hypothetical aircraft, a hybrid of the B-747 and DC-10. The input data defined a fleet of aircraft with approximately the same production rate, fleet size, and service life as the B-747. This data also defined 1369 elements for each aircraft in the fleet. These elements included all the basic aircraft component types such as spars, stringers, and frames.

The demonstration was also intended to determine whether the SAIFE logic produced results which would be realistic when compared with the actual service history of jet transport aircraft. The realization of this second objective led to four separate stages during the demonstration task. The last three stages are characterized by changes in the SAIFE logic and/or alterations to the demonstration input data.

2. Initial Demonstration Stage

The initial demonstration started with the logic and input data submitted in the draft version of Volumes II and III of this report. The logic and input data had been reviewed prior to the start of the demonstration. However, because of the complexity of the logic and the volume of input data, several unanticipated problems were encountered when the initial demonstration output was reviewed. This review was conducted after 3-1/2 percent of the elements had been processed.

The most obvious problem was the extremely large number of cracks that were occurring on each element. An investigation of this problem revealed several contributing factors. The first factor was the large fleet being evaluated, 1000 aircraft, and the long service life, 60,000 flight hours, of each aircraft. Since the resultant total exposure of 60 million flight hours was much greater than that of any one fleet now in service, the corresponding number of cracks in the sample fleet appeared to be excessive. The obvious solution to this problem was to reduce the number of aircraft in the fleet and, thereby, reduce the total fleet flight hours.

A further review of the input data revealed that there were two additional factors causing the large number of cracks. Both of these factors contributed to an unreal stically low fatigue life for most elements. Of the latter two factors, the first was the relationship between the predicted and the actual fatigue life. Since the relationship used had been developed in the early 1960's, it was considered too conservative in the light of improved analysis techniques.

The second factor causing unrealistically low fatigue lives was the predicted lives used as input to the program. Although these lives were taken from data on wide-body aircraft, it was discovered that the design life rather than the predicted mean life had been used as input. When the mean life, which is much greater than the design life, was used as input, there was considerable increase in the fatigue lives of the elements.

During this review it was also determined that the SAIFE logic should include the effects of sampling inspections at overhaul (D-level). Because of the limited time available to make this change, it was determined that reducing the probability of defect detection would be the most effective means of simulating the sampling effect. In addition, an optional output format was needed to provide more specific information on the events that lead to structural failures. Such a format had been used early in the development program but was later omitted because of its excessive output volume. Consequently, it was decided that this format should be restored as an option along with the capability of selecting aircraft numbers and elements to reduce the volume.

3. Second Demonstration Stage

Prior to restarting the demonstration, the following changes were made to the logic and the input data:

- a) The number of aircraft in the fleet was reduced from 1000 to \$00.
- b) The relationship between the predicted and the actual fatigue life was revised to yield statistically higher actual fatigue lives.
- c) All predicted fatigue lives in the input data were changed from design life to predicted mean life.
- d) The percent reduction in inspection intervals was increased appreciably to provide more realistic changes.
- o) The lowest internal inspection level for each element was reviewed and, wherever required, revised to a higher level.
- f) Logic to account for the effect of sampling inspections was added. This logic reduced the probability of defect detection in direct proportion to the percentage of the fleet being sampled.

After processing 30% of the elements, the output data was reviewed. This review reveated that the foregoing changes had successfully reduced the number of cracks but that the number of failures was still unrealistically high. This problem was attributed to two factors: First, the sampling logic for the D-level inspection had appreciably reduced the number of cracks

detected at this level. Second, the SAIFE logic did not allow a crack that originated internally to eventually appear externally. Therefore, the defect was never exposed to lower level inspections as it would be in a real world situation.

Consequently, it was decided to change the logic for the sampling inspections in order to improve the number of defects detected at overhaul but not to make any changes concerning the second factor at this time. It was felt that making too many modifications at one time would make it difficult to determine the effect of each modification on the output.

The review of the second demonstration stage output also revealed that the intervals for the C-level and D-level inspections were frequently as low as 10 flight hours. Since the program criteria for reducing inspection intervals are applied only to the C-level and D-level inspections, this resulted in C-level and D-level inspections occurring more often than either A-level or B-level inspections. To prevent this, it was decided that minimum C-level and D-level intervals should be established.

4. Third Demonstration Stage

Before again restarting the demonstration, the following changes were made to the logic:

- a) The sampling logic was revised so that only designated aircraft were inspected. However, the probability of detecting large defects on these designated aircraft could approach 99%.
- b) The interval for each of the inspection levels was set so that it could never be less than the initial interval of the preceding inspection level. For example, the D-level inspection interval could never be less than the initial C-level inspection interval, that is 1000 hours.

The results of these changes were apparent after processing only 13% of the elements. Although the minimum inspection interval produced the desired effect, the revision of the sampling inspection logic not only did not reduce the number of structural failures but, in fact, increased the number slightly.

Consequently, it was decided that the sampling inspection logic used in the second demonstration should be restored and that other logic be added so that cracks originating internally would eventually be detectable externally.

5. Final Demonstration Stage

Before restarting the demonstration for the final run, the following changes were made to the logic:

- a) Cracks that originated internally were allowed to appear externally when the crack length equaled the critical length.
- b) The sampling inspection logic used in the second demonstration smage was restored. This logic reduced the probability of defect detection in proportion to the percentage of the fleet being sampled.
- c) The detailed output format that had been previously used was restored as an option for the final demonstration.

The demonstration output resulting from the final SAIFE logic and input data is detailed in the following section.

6. Revised Program Demonstration Stage

The appendix includes a complete description of the results and analysis from the parametric study.

III. DEMONSTRATION RESULTS

1. Analysis of the Final Demonstration Stage Output by Element Type

Since both the SAIFE demonstration output and the MRR/SDR service history data are extremely voluminous, this report presents only summary tables of the most pertinent facts. Table 1 lists the 21 element types analyzed in the SAIFE demonstration along with the following information:

- a) Reference to a following table that contains more detailed, but still summarized, data, including the number of cracks and corrosions detected at each inspection level, the number of production and service defects, and the number of failures and fail-safe damage occurrences.
- b) The ratio of the number of cracks detected in the SAIFE output to the number of cracks reported on MRR/SDR's.
- c) The number of structural failures per million flight hours predicted by SAIFE.
- d) The ratio of the number of first cracks occurring to the number of cracks detected by SAIFE.

When comparing the service history with the SAIFE domonstration output, four factors that affect the two data sets must be considered. The net result of these factors should be more defects, in the SAIFE output than in the service history. Of these four factors, the first three increase the number of defects presented in the demonstration output, but the fourth decreases the number of defects. The four factors are as follows:

- a) The MRR/SDR data represents generally the first half of the service life of aircraft because the data were collected from the U.S. air carrier fleet while the SAIFH output represents the entire service life of all the aircraft in a given fleet.
- b) Not all aircraft defects are reported in the MRR/SDR documents.
- c) The service history is based on narrow-body aircraft which have fower elements than the hypothetical wide-body aircraft used in the demonstration.
- d) Improved analysis techniques, design criteria, and manufacturing methods should result in fewer defects on the wide-body aircraft represented in the demonstration than on the narrow-body aircraft reported in the MRR/SDR's.

TABLE 1. SUMMARY OF SAIFE DEMONSTRATION RESULTS

	3	ć	(c) SAIFE	;
	(a) Deference	(D)	Fallures	(p)
Element Type	Table No.	MRR/SDR Cracks	Flight Hours	riist tracks occurring/ Cracks Detected
Door frame	м	2.16	0.00	1.62
Window frame	4	32.06	0.00	1.66
Fuselage - main frame, botton	ıņ	£ 60 0	00.00	9.47
- main frame, side	9	4.34	0.10	1.21
- main frame, top	7	0.53	0.00	10.13
- stringer, bottom	•••	4.38	00.00	2.00
- stringer, side	თ	2.22	0.07	2.15
- stringer, top	10	1.92	0.07	2.33
Wing - access frame	11	4.30	00.00	2.03
- spar, aft	12	0.46	0.00	1.38
- spar, center	13	33.85	0.00	1.84
- spar, forward	14	1.31	0.00	1.77
- stringer, aft	15		0.00	1.62
- stringer, center	16	8.94	0.00	1.55
- stringer, forward	17	4.83	0.00	1.61
Wing Center Section				
- stringer, aft	18	4.42	0.00	1.50
- stringer, center	19	1.90	00.00	1.78
- stringer, forward	20	0.15	0.00	1.57
- spanwise beam, aft	21	0.55	0.00	1.79
- spanwise beam, center	22	0.57	0.00	1,50
- spanwise beam, forward	23	0.13	0.00	1.57

In column (b) of Table 1, the ratios of the number of cracks detected in the SAIFE output to the number of cracks reported on MRR/SDR's vary widely. For 14 of the 21 element types, the ratios are greater than 1.00, which is the expected result in view of the four factors affecting the comparison of the two data sets.

Of these 14 element types, two have ratios larger than would be expected. For the first element type, WINDOW FRAMES, the fatigue lives in the SAIFE input were apparently underestimated, although the available manufacturers' data were reviewed thoroughly before the final demonstration was initiated. For the second element type, WING - SPAR, CENTER, the ratio is understandably high since only about 25% of the aircraft reported in the MRR/SDR's have center wing spars.

For the remaining seven element types, the ratios are less than 1.00. These ratios indicate that either the fatigue lives of the elements were overestimated or the lowest level of inspection was incorrect and consequently not enough cracks were detected by the SAIFE logic.

The failure data presented in column (c) of Table 1 is difficult to analyze because of the extremely low probability of a failure actually occurring in service. However, the complete lack of failures in the wing elements is notable. There have been at least two instances of wing spar failure on turboprop aircraft in the last 10 years. While the aircraft simulated by SAIFE was a turbofa, and not a turboprop, the two designs are similar enough to expect that some wing failures would have occurred in the demonstration. Although the extremely low failure rate, one or two failures per 60 million flight hours, makes it impossible to determine whether or not the model is not functioning properly, several reviews of the model logic during the monstration indicated that the model was performing as designed.

Finally, column (d) of Table 1 lists for each element type the ratio of the number of first cracks occurring to the number of cracks detected. This data cannot be compared with the service history since aircraft retired from service are rarely inspected to obtain this type of data. The ratios are between 1.50 and 2.33 except for two eloment types whose ratios are 9.47 and 10.13. These high ratios are attributed to a combination of three factors: relatively short fatigue lives, slow crack growth rate, and long critical crack length. This combination results in many cracks occurring during the service life of the aircraft; but since these cracks remain small for a long period of time, they are difficult to detect.

2. Analysis of the Final Demonstration Stage Output by Inspection Level

The number of cracks detected per million flight hours at each inspection level along with the associated percentage of total cracks is presented in Table 2 for both the SAIFB and the MRR/SDR data. The MRR/SDR service history shows that as the inspection level progresses from preflight to overhaul, the percentage of cracks detected increases. This progressive increase can be attributed to the larger portions of the aircraft being inspected and the increasing probability of detection associated with the higher inspection levels.

The SAIFE data shows a similar progression except for the overhaul inspection level. The decrease in the percentage of cracks detected at this level can be attributed to the method used in the SAIFE logic for conducting sampling inspections at the overhaul level. This method sets the maximum probability of detection equal to the sampling percentage; that is, if only 25% of the floot is inspected at the overhaul inspection, then the maximum probability of detecting cracks, on a fleet-wide basis, is only 25% of the original maximum probability. The problem is complicated by the fact that the maximum probabilities of dotection for the lower inspection levels are based on the total number of cracks detected and reported in MRR/SDR's. cracks include those reported from overhaul inspections which were conducted on a sampling basis. It, therefore, appears that the effects of sampling inspections may be accounted for twice in SAIFE or, alternatively, that these effects were not correctly accounted for in the data for the lower level inspections.

Tables 3 through 23 compare the SAIFH demonstration results with the MRR/SDR data for each of the element types. Included in each table is the SAIFE summary output for that element type. In addition to the summary output, some of the tables contain SAIFE output for specific element stations.

Table 9 contains the SAIFE output for the FUS-STR-SID stations 1660, 1760, and 1940. Each of these stations on certain aircraft had cracks which grew to the fail-safe crack length during the service life of the aircraft. Since some aircraft had structural failures because of the cracks at stations 1660 and 1940, Table 9 includes the SAIFE "long list" output for both of these stations. This output tracks the structural history of aircraft with element failures.

Of all the FUS-STR-SID stations, station 1760 had the largest number of first crack initiations, namely 53, which can be attributed to its initially short ACTUAL AVERAGE FATIGUE LIFE. This short life (less than two times the aircraft service life) caused the production modification.

Table 10 contains the SAIFE output for the FUS-STR-TOP stations 1080, 1160, and 1760. Stations 1080 and 1160 on certain aircraft had cracks which grew to the fail-safe crack length during the service life of the aircraft. Table 10 also includes the SAIFE "long list" output for stations 1080 and 1300 since aircraft sustained structural failures because of cracks at these two stations. Station 1760 is included in Table 10 because it had the largest number of first crack initiations, namely 52. As above, this large number can be attributed to the initially short ACTUAL AVERAGE FATIGUE LIFE for station 1760. Again, this short life caused a production modification.

Table 16 contains the SAIFE output for the WNG-STR-LSC stations 0294 and 0669. Although the number of crack initiations at station 0294 was relatively small, this station had a sufficiently large crack occurring early enough in the simulation to prompt a retrofit structural modification because of economic considerations. Of all the WNG-STR-LSC element stations, station 0669 had the largest number of crack initiations, namely 64. Again, this large number can be attributed to the initial short fatigue life and caused a production modification.

3. Comparison of Results from the Four Demonstration Stage Outputs

Tables 24 through 27 compare the four demonstration stage outputs for four element types:

Element	<u>Table</u>
Door frame	24
Wing Center Section	
spanwise beam, aftspanwise beam, centerspanwise beam, forward	25 26 27

The comparison of the results of the first two demonstration outputs shows the effects of reducing the number of aircraft in the fleet by a factor of 2.0 and increasing the actual fatigue life by a factor of 3.3.

The comparison of the results of the second and final demonstration outputs shows the effects of introducing sampling inspections in the overhaul inspection logic and of allowing cracks that originated internally to appear externally and then become subject to inspection at a lower level.

IV. SUMMARY AND CONCLUSIONS

- (1) With some minor refinement changes, the SAIFE model can be used by the FAA, air carriers, or aircraft manufacturers to conduct the following types of evaluations: (a) Design the effects of changing fatigue life, corrosion resistance, or crack growth on design, (b) Cost the effect of increasing cost on modification versus repair decisions, and (c) Operational the relative effects of increasing the inspection interval or of changing the inspection of individual elements from one inspection level to another.
- (2) Of the 21 element types summarized in the SAIFE demonstration output, 14 had ratios of SAIFE cracks to service history cracks that were within the expected range, that is, greater than 1.00. Of those 14 element types, 2 had ratios that were too high to be realistic. The remaining seven had ratios that were considerably less than 1.00.
- (3) The SAIFE model is slightly unconservative in predicting failures; that is, it predicts too few structural failures.
- (4) The SAIFE and the service history data for the percentage of cracks detected at each inspection level do not compare well. This discrepancy is primarily due to the method used in SAIFE to account for the sampling effects at the overhaul inspection.
- (5) During the studies conducted for the preparation of Volume II, it was noted that phenomena related to corrosion, production defects, and service damage are not well documented in either MRR/SDR's or analytical studies and that they consequently require further study.

TABLE 2 COMPARISON OF CRACKS DETECTED AT EACH INSPECTION LEVIL PER MILLION FLIGHT HOURS

	SAI	FE	MR	R/SDR
	Cracks Detected	% of Total	Cracks Detected	f of Total
Preflight .	23.58	11.1	2.87	4.3
Service	56.97	26.7	7.93	11.8
Phase	80.26	37.6	10.94	16.3
Overhau1	26.15	12.3	24.21	36.1
Special	26.23	12.3	21.14	31.5 ·
Total	213.19	100.0	67.09	100.0

TABLE 3. DEMONSTRATION RESULTS FOR DOOR FRAME

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Cracks Detected	•	
Preflight Service Phase Overhaul Special	0.53 0.60 2.63 0.13 0.00	0.16 0.08 0.93 0.55 0.08
Total	3.89	1.80
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.47 0.30 1.00 0.00	0.00 0.06 0.12 0.12 0.00
Total	1.77	0.30
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.27 0.00	0.02 0.15 0.00

TABLE 3 - Concluded

AIRCRAFT TYPE: HYBRID

8870 HQC86		PRODUCTION DEFECTS		SPECIAL		• 0	• o	0. TION	SPECIAL			• 0	•					EGUALS FAIL-SAFE STRENGTH FLI, HOURS STA. NO.
SERVICE LIFE: FR#	FECTS	Q	OF INSPECTION	D-LEVEL	•	. 55	1.65	.99 VEL OF INSPEC	D-LEVEL	0		ဗီဇ	•	00001	12000	23438		RENGTH
G-BOO-SHE THEMS IS	TION OF AIRCRAFT DE	SERVICE DAMAGE	25836 CTED AT EACH LEVEL :	C-LEVEL	24	34	N. 40	.96 DETECTED AT EACH LE	C-LEVEL	02	26.	16.73	. 7.	9001	0000	1953		RESIDUAL ST AIRCRAFT NO.
SUBSECT OF STRUCTURES FLEREST FUNDOSESS	NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS	CORRUSION 55 165 59175	42731 28862 25436 NUMBER AND LENGTH OF ERACKS DETECTED AT EACH LEVEL OF INSPECTION	R-LEVEL	18	## ·	1.62	09 .99 .99 AND AREA OF COMPOSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	B-LEVEL	0	80.	1.90		900	200	500	ນ ເລ ປະຊຸດ	STA. NO.
	NUMBER.	FIRST CRACK 189 436 59903	42731 NUMBEH AND LEI	6 . L . E . E . E . E . E . E . E . E . E	16	69.	7.00	•	A-LEVEL	14	•	2,36 1 BI	1	YALS(HRS) 25	. c	\$2	SPECIAL INSPECTIONS CONDUCTED: STRUCTURAL MODIFICATIONS: 2 AIRCRAFT MODIFIED IN SERVICE:	STRUCTURAL FAILURES FLT, HOURS
		OCCUPPENCES MIN(HPS) MAN(HPS)	AYG(HRS)		OCCURRENCES	MIN(IN)	MAX(IN)			OCCURRENCES	MIN(SO.IN)	MAX(SQ.IN) AVE(SQ IN)		INSPECTION INTERVALS (HRS)	SHURTEST	LONGEST	NUMBER OF SPECIAL NUMBER OF AIRCRA	STR AIRCPART NO.

TABLE 4. DEMONSTRATION RESULTS FOR WINDOW FRAME

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	0.00 5.17 21.40 3.20 5.17	0.06 0.06 0.12 0.67 0.18
Total	34.94	1.09
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.00 0.03 0.20 0.03 0.00	0.02 0.00 0.02 0.02 0.02
Total	0.26	0.08
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.93 0.13	0.02 0.18 0.00

TABLE 4 - Concluded

AIRCRAFT TYPE; HYBRID

60000 4DURS			PRODUCTION DEFECTS		••••	• • • • •	• • • •		SPECIAL	• • • • • • •	155	199 (2.50	10	ITON	SPECIAL	•	•	•	•						-SAFE ST	
AIRCRAFT SERVICE LIFE:	*	ECTS	0					F INSPECTION	O-LEVEL	•	96	-11	2.23	9	EL OF INSPEC	D-LEVEL	-	6.34	6.39	6. 39		12000	1677	23436		PENGTH	
AIRERAFT SE	STRUCTURAL ELEMENT: FUS-mIN-FRM	ITION OF AIRCRAFT DEFECTS	SERVICE DIMBGE	28	2657	25625	96940	AND LENGTH OF CRACKS DETECTED AT EACH LEYEL OF	COLEVEL	******	299	.27	3,26	99.	COPPOSIÓN DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	Cotevel	•	1.52	5.65	2.73		1000	204	2785		RESIDUAL ST AIRCPAFT NG.	
ET: 500	SUMMARY OF STRUCTURAL	A AND TIME TO INITIATION OF	CORROSION	01	17482	58569	38366	ENGTH OF CRACKS DETE	BOLEVEL		155	8	80 % · I	.	OF CORPOSION DEFECTS	B-LEVEL	•	1.28	1.28	1.28		200	200	902	TED: 218 9 10E: 0	STA. NG.	****
NUMBER OF AIRCRAFT IN FLEET:	•	и 3 випи	FIRST CRACK		0.000	58665	43708	T ONT HERMAN	A-LEVEL		0	• •	• 0	.	NIJWBER AND AREA C	A-LEVEL	0	• •	•0	•	VALS(HRS)	52	25	52	SPECIAL INSPECTIONS CONDUCTED: STRUCTURAL MODIFICATIONS: 9 AIRCRAFT MODIFIED IN SERVICE:	STRUCTURAL FAILURES FLT. HOURS	
138MU4				OFFIREFACES	X X X X X X X X X X X X X X X X X X X	MAX (H2S)	AVG(HRS)				OCCURRENCES	CHINING THE	MAXCEN)	4V6(1%)			STATEMENTS	MIN (SO IN)	MAX (SQ. IR)	AVG(SQ.IN)	INSPECTION INTERVALS(HRS)	INITIAL	SHORTEST	LONGEST	NUMBER OF SPECIA NUMBER OF STRUCT NUMBER OF AIRCRA	STR AIRCRAFT NO.	

TABLE 5. DEMONSTRATION RESULTS FOR FUSELAGE - MAIN FRAME, BOTTOM

	Defects Per Million SAIFE	n Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	0.20 0.23 0.20 2.53 0.00	0.57 0.67 0.47 1.53 0.38
Total	3.16	3.62
Corrosion Detected	V 1	
Preflight Service Phase Overhaul Special	0.03 0.00 0.00 0.10 0.00	0.34 1.10 0.41 1.99 0.55
Total	0.13	4.39
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 1.03 0.20	0.22 0.44 0.06

TABLE 5 - Concluded

SIPCHAFI TIPE: HYPHID

40000 MOURS AIRCHAFT SERVICE LIFE: WINGER OF AINCHAFT IN FILETS SOO

SIMMADY OF STRUCTURAL ELFWENT: FUS-MFR-RIT

MUMBER AND THE TO INITIATION HE APPEMEN DEFECTS

Pennicijok Affecis 6	14 E 3 9 G S		å, l	• •			STRENGTH FOURLS FAIL-SAFE STRENGTH IO. FLT. HOURS STA. 40.
	THE THESPECTION OF LEVEL	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	LEVFL OF TASPEC	62.91 80.57	12000 17000 17000		MESIDINAL STRENGTH FOR ALMCRAFT NO.
SEAVICE DAMAGE 51 2615 59910 33513	NIMBED AND LENGTH DE FWEEKS DETFETED AT FACH LEVEL DE INSPECTION LEVEL HAIEVEL DELEVEL CONTRACTOR OF THE PROPERTY OF THE PROPE	\$ \$ \$ \$ \$ \$ \$ \$ \$	ALLEVEL POLEVEL COLEVEL DOUBLETTON ALEVEL DOUBLETTON COLEVEL DOUBLY COLEVEL DOUBLY COLEVEL DOUBLY COLEVEL DOUBLY COLEVEL COLEVEL DOUBLY COLEVEL COLEVE	• •	1600 1000 1953		AINCRAFT .
17 17 9630 56901 14694	FRETH OF FMACKS EF	- 20 c c	NF C(IDATISTICA DEFEC	• • • • • •	200 200 200	UCTED: 0 : 2 VICE: 6	STA. Pft.
FJRST CHACK 900 900 900 900 599954 45376	7 jA j]- y Yat ciaskily	40 4 C	A-LEVFL	200	(FRVALS(MRS) 25 25 25	SPECIAL INSPECTIONS CONDUCTED: SFRUCTIONS: 2 AIRCRAFT WONIFIED IN SEMVICE:	STRUCTURAL FAILURES
(ICCHRPFNCFS) MIN(HRS) MAX(HRS) AVG(HRS)		OCCURRENCES WIN(IN) WEX(IN) AVG(IN)	OCCURRENCES	MIR(SQ. IV) MAK(SQ. IV) AVG(SQ. IV)	INSPECTION INTERVALS INITIAL SHORTEST LONGEST	NUMBER OF SPENDMEN OF STR	* FIR LANGUAGE

TABLE 6. DEMONSTRATION RESULTS FOR FUSELAGE - MAIN FRAME, SIDE

	Defects Per Millio SAIFE	on Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	0.00 6.70 9.00 4.97 5.57	0.34 0.69 0.76 3.57 0.69
Total	26.24	6.05
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.00 0.00 0.03 0.13 0.17	0.00 0.07 0.07 0.54 0.07
Total	0.33	0.75
Fail-Safe Damage Failures Service Damage Production Defects	0.07 0.10 0.77 0.13	0.04 0.33 0.15

TABLE 6 - Concluded

CINEAR CHARL TREACTION

6090 8 HOURS
AIMCHAFT SFWAICE LIFE:
6.00
The Fibrit
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SURVADY OF STRUCTURAL FLAMENT: FISHWERSIN	MUNHEN AND TIME TO INITIATION OF AIMCHAFT DEFECTS
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 PRESCULTION SEFECTS		•	****		1 1 1 1 1 1 1 1 1 1
SERVICE DAMAGE	***********	23	4140	57971	20702
COMPOSITION	*******	40	77:	59470	33506
FIRST CALCE	*********	452	516	15565	***************************************
		SECONDENCES.	#1%(HHS)	*** (HDS)	(Serigat

SOWER AND LENGTH OF COACKS OFFICED AT EACH LEVEL OF INSPECTION

SPECIAL	******	167		14.14	5.46
D-LEVEL	******	071	1.	10,36	\$6.4
13831-3	******	270	59.	34.25	10,65
3016VEL	******	100 0	10.1	12.14	All to so so so
4-1-E 451.	******	¢.	* **	•	,
		JCCOMPENCES	(14(14)	(%1) x74	146(15)

ACTIOSARI AC LEVEL UP CLARACTON DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

	1383709	5-1.F V.E.L	COLEME	Colean.	SPECIAL
	******			******	******
S33NJedf33JU	C)	e ¹	9 -4	•	•
#I#(80°14)	•	• • • • • • • • • • • • • • • • • • • •	() (d) (e)	4.67	1.59
WAX(SQ.IA)	in.	'n	BW*1	21.55	35.37
446(SG.[%]	e.	•	() 18 mg	15.63	21.51
PASPECTION INTER	18(-65)				
INTTIAL	2,	205	1660	10 CM	
SHORTEST	К	592	20405	1433	
LO46587		いなん	2585	25438	

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LINCORFT NO.	F. F	STA. 25.	THE HUMBHANA	AIPCRAFF SI. FLI. HEBBS SIA. MG.	STA. MG.
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TABLE 7. DEMONSTRATION RESULTS FOR FUSELAGE - MAIN FRAME, TOP

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Cracks Detected		
Proflight Sorvice Phase Overhaul Special	0.00 0.00 0.60 2.37 0.00	0.00 0.00 2.86 1.57 1.14
Total	2.97	5.57
Corrosion Detected		
Proflight Service Phase Overhaul Special	0.00 0.00 0.00 0.20 0.00	0.00 0.00 0.00 0.00 0.00
Total	0.20	0.00
Fail-Safo Damago Failures Service Damage Production Defects	0.00 0.00 1.03 0.20	0.00 0.02 0.15

TABLE 7 - Concluded

AIRCEAFT TYPE: MYRRID

FE'S ANDOG MOUNS			PRODUCTION DEFECTS	•	• • • • •	• • • • • • • • • • • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •	*01.		SPECIAL SPECIAL	·			.0		SPECTION .	SPECIAL SPECIAL		9	***				8203	70		STRENGTH EQUALS FAIL-SAFF STRENGTH	
AIHERAFT SERVICE LIFES	-wF2-T0P	AFT DEFECTS.	ICE DAMAGE				13	LEVEL OF INSPEC	ſ	D-LEVEL				-		TACH LEVEL OF T	Del FYF			14.08	90.04	• • • • • • • • • • • • • • • • • • • •	12906	95	23438		RESIDUAL STRENG!	
AINCR	IL FLEWENT: FUS-	TATION OF AIRCPA	SERVICE DAMAGE		17	01665	33513	TECTED AT EACH	114	TBABT-3		K. !	54.		•	S DETECTED AT E		726270	0	•	.	e c	0031	***	1653		œ ·	•
208	SUPPART OF STRUCTURAL FLEWENT: FUS-WFR-10P	NUMBER AND TIME TO INITIATION OF AIRCPART DEFECTS	MOISUMBUD	•	~	9630	3 P P P P P P P P P P P P P P P P P P P	MOILDEACH OF THEFORE AT EACH LEVEL OF INSPECTION	MINE IN CARCAGO	14 P VE		0	، ي	ه د	•	O AND ABEA OF FORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	•	R-I EVEL		· c	• · · · · · · · · · · · · · · · · · · ·	e.	i i	000	5002	760: 3 2 76: 0	•	
TRESAFT IN FLEET:		RUMPER	FIRST CRACK		206	255	59995		NUMBER AND LE			c	• •	• 0	.	AN AREA CAL ORGANIA		4-LF VEL	• • • • • • • • • • • • • • • • • • • •			9	_		C X	SPECIAL IMSPECTIONS CONDUCTED: STRUCTURAL MODIFICATIONS: 2 ATTENDACT MODIFICATIONS: 2	STRUCTURAL FAILURES	
					CLINERFACES	#IR(HRS)	MEX (HRS) Avg(HRS)					A 17 1 10 00 10 10 00	212(12)	MAK (IN)	AVG(I%)					OCCURRENCES	CHI COLLEGE	AVE(50.14)	THSPECTION INTERVALSINHS	JMITIAL	SHORTEST	90		

TABLE 8. DEMONSTRATION RESULTS FOR FUSELAGE - STRINGER, BOTTOM

Defects Per Million SAIFE	Flight Hours MRR/SDR
3.63	0.57
	0.67
2.67	0.47
2.40	1.53
3.97	0.38
15.87	3.62
· ·	
3,13	0.34
2.07	1.10
	0.41
	1.99
0.57	0.55
7.71	4.39
0.00	0.22
	# m = W
	0.44
0.13	0.06
	3.63 3.20 2.67 2.40 3.97 15.87 3.13 2.07 0.77 1.17 0.57 7.71

TABLE 8 - Concluded

AIRCRAFT TYPE: HYBRID

60000 HOURS			PRODUCTION DEFECTS	2	•	• • • • • • • • • • • • • • • • • • • •	• • • • •		ž.	14 10 000	SPELIAL) P	VI	10.4	1.58		CTION		SPECIAL	1.7	- 40°	59.67	56.85								HISTORIAN SERVICE STAFFEE	STA.	E	
AIRCHAFT SERVICE LIFE:	ELEMENT: FUS-STR-AGT	TIME TO INITIATION OF AIRCRAFT DEFECTS	SERVICE DAMAGE PRO		# C 6	5,8241	27969	1	TED AT EACH LEVEL OF INSPECTION		C-LEVEL D-LEVEL			. 27				NETECTED AT EACH LEVEL OF INSPECTION	ı	C-LEVEL D-LEVEL		53	ř	an a sure and a sure a sure and a sure a sure and a sure and a sure and a sure and a sure a sure a sure and a sure	and and and and and and	1000 12010		1953 23434					ANNIOLE MITTIGET F.		
IN FLEET: 506	SUMMARY OF STRUCTURAL ELEMENT: FUS-STR-RGT	AUKRER AND TIME TO INITIAT			275	- C - C - C - C - C - C - C - C - C - C	3 F 1 6 F	21543	MANAGES AND FEMETH OF PRACKS DETECTED AT EACH LEVEL		303170	11116	1) t	3 Q	, , , , , , , , , , , , , , , , , , ,	1,13	THE CHANGE AND ADDRESS OF THE PARTY OF THE P	AREA OF LUMRICATION DETECTS	R-LEVEL		29	98.	3,00	4.59	900	o de f	500 0	720	COMPUCTED: 78	TCATIONS: 5		S	STA STA	
NUMAER OF AIRCRET I			FIRST CPACK		DECHRERCES 950			AVG(HRS) 431R3			•		5 5 5 5 5	OCCURRENCES	ur •		40°		MUMBER AND				n		AVE(SQ_IN) 1.73	INSPECTION INTERVALS (MRS)		SHORTEST		MINNAFA OF SPECIAL THSPECTIONS CONDUCTED:	8	OF AIRCRAFT WODIFIE	STANCTUPAL FAILU		

TABLE 9. DEMONSTRATION RESULTS FOR FUSELAGE - STRINGER, SIDE

•	·	
	Defects Per Million SAIFE	Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	0.00 3.33 4.40 2.87 3.33	0.34 0.69 0.76 3.57 0.69
Total	13.43	6.05
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.00 0.47 0.97 0.23 0.20	0.00 0.07 0.07 0.54 0.07
Total	1.87	0.75
Fail-Safe Damage Failures Service Damage Production Defects	0.37 0.07 0.63 0.30	0.04 0.33 0.15

TABLE 9 - Continued

EINCHAFI TYPE: MTHKID

AINCHAFT SERVICE LIFF: 60000 MOURS

是19.20mm (19.10mm) (19.10

45-464 OF ALMCMART OF FLEETS 500 SOWMARY OF STRUCTURAL ELEMENTS FUSHINGSOM NUMBER AND TIME TO INITIATION OF AIMCHAFT DEFECTS

PRODUCTION DEFECTS	2 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	• • •
SERVICE DAMAGE	19 3922	57792 3489h
CHRESION	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	51923
FIRST CHACK	() () () () () () () () () () () () () (75065 75065
	OCCURRENCE S	* [2(HKO) * AK(HKO) * KE(HKO)

RIMMER AND LENGTH HE CRACKS DETECTED AT EACH LEVEL UF INSPECTION

100 100 100 100 100 100
0-LEVEL 56 30 4.66 1.42
C-LEVEL 132 132 38.10 5.03
100 100 100 100 100 100 100 100 100 100
A C C C C C C C C C C C C C C C C C C C
DCCURRENCES MJW(IS) WBX(IN) AVG(IN)

CHRANSIES DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

SPECIAL 6 4.92 45.61 30.63	STRENGTH SIA, ND. 0200 0200 1660 1720 170 1160 1940 2240	
D-LEVEL 7 4 95 73 19.99	12000 23436 2745 2745 2745 2745 EESITUJAL STRENGTH EGUALS FAIL—SAFE STRENGTH IRCRAFT 41), FLI, HÖURS 51A, MI 196 196 196 250 244 244 550 244 550 244 550 245 54 245 550 370 1960 1740 257 270 270 270 270 270 270 270 270 270 27	1
A-LEVEL C-LEVEL D-LEVEL 14 29 14 29 15 56 16,15 16,99	1000 204 2785 2785 2785 490 196 350 28 28 28 34 174 87 325 54	`: <u>-</u>
H-LEVEL 14 3,39 1,85	200 200 200 200 200 1CE: 6 5TA, til.	
2	INSUFCTION INTERVALS (AMS) INTITAL 25 SHIMTEST 25 LUMGFST NUMMER OF SPECIAL INSUECTIONS CITABLE TO BE MINNER OF ALMCHAL WOULFLEETONS ALMCREN OF STRUCTURAL WOULFLEETONS ALMCREF OF ALMCHAF WOULFLEETONS STANCTORY ST	
UCCURPEMCES **[4(St.a.l.) **A.(St.a.l.) Avg(St.a.l.)	Insufction intervals (AMS) Intitat Suimitest Lingfort Number of Special Paspect Number of Special Paspect Number of Structural widdle Number of Structural widdle Number of Structural widdle Strucket of Structural Fits Strucket of Structural Fits Strucket of Structural Strucket Strucket of Structural Strucket of Struc	

TABLE 9 - Continued

AJRCHAFT TYPE: MYRRID

AINCHAFT SERVICE LIFE: 60000 MIURS STATES OF AIRCRAFT IN FLEETS SOR

SIMUCTUBAL FLEMENTS FUS-STR-SIO-1600

ACTUAL AYERAGE FATIGUE LIFE: 193281 WOURS PREDICTER NAEMAGE FATIGUE LIFE: 1776AD MUURS

PRODUCTION DEFECTS		it SPEC1 21.		••	, , , G		ECTION	SPECIAL	•		•							N. P.	FLT. HOURS
	·	OF INSPECTIO	-		1.56 1.69		TEVEL OF THSPE	DOLEVEL	•		,		15000	18759	1929	10254			AIRCRAFT MO.
SENVICE DANGE	9606) AT EACH LEVEL	*******	•	•	•	ECTED AT EACH L	C-LEVFL		9.9	4.76		1250	1563	1953	1 1 1		,	76 5 1 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
LUPER AND TIPE TO INITIATION OF AINCHAFT DEFECTS SEWLICE DAMAGE	19842 19842 19893 2	AUMPER AND LENGTH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION	A-LÉVEL	c		¢.	ANNAEW AND AREA OF CORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	h-LEVEL		.	 e		200	****	092	200	707	CIED: 1 0 0 LIFE: 183281 MDURS ICE: 0	URS
SIMBE CACA	1941.5 1941.5 5787.5 47604	37 O'49 BÉBANT	BOLEVEL	2	, c	•	THE PART OF THE OF	Ami fwel.		•	• •	VALS (HRS)	£	N N N		: : : :	25	AUMBER OF SPECIAL INSPECTIONS COMBUCTED: 1 AUMBER OF STRUCTURAL WODIFICATIONS: 0 MINAL ACTUAL AVERAGE WODIFIED FATIGUE LIFE: NUMBER OF AIRCRAFT WIDIFIED IN SERVICE:	STRUCTURAL FALLINES LEFT NO. FLT. MOURS
	ncuppences Min(MRS) Max(HRS) Adg(MRS)			ACCURRENCES	(Alk(IA)	(NE) YAC (E4)				OCCUPRFACES MINISO_[K]	MAX (50.1%) AVG (50.1%)	INSPECTION INTERVALS (HRS)	TESTAL	~	M	.		MUMBER OF SPECTA NUMBER OF STRUCT FINAL ACTUAL AVE MUMBER OF AIRCR	STRUCTUR AIRCRAFT NG.

TABLE 9 - Continued

AIRCRAFT TYPE: HYBRID

60000 HOURS	
SIRCASFT SERVICE LIFFE	
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164352 HOURS		PRODUCTION DEFECTS	SPECIAL 11 555 6,77 1,84	SPECIAL 0.00
SCTUAL AVERAGE FATIGUE LIFES 164352 MOURS	DEFECTS		L OF INSPECTION D-LEVEL 12 35 2.57 1.56	NUMBER AND AREA OF COPROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION A-LFVFL O O O O O O O O O O O O O
SOTORL AV	TION OF LINCRAFT	SECTOE DAMAGE 1 28314 28314 28314 28314	CTES AT EACH LEVE	OETECTER AT EACH COLEVED
1753&@ MGUKS	CLUMER AND TIME IN INITIATION OF LINCRAFT DEFECTS	401508d02	LEVEL B-LEVEL C-LEVEL C-LEVEL OF INSPECTION LEVEL B-LEVEL C-LEVEL C-LEVEL 0 0 0 0 17,53 0 0 0 3,557 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	COPROSION DEFECTS 9-LEVEL 0 0 0 0
AVERAGE FATIGUE LIFE: 175380 HGUKS	n gam'i'	FIRST CHACK 53 16166 59995 42214	ALEVEL A-LEVEL O O O O O	NUMBER AND AREA OF BALFVFL
PREDICTED AVE		OCCURRENCES BYR(HRS) RAN(HPS) AGE(HRS)	OCCURBENCES MIM(IN) MAX(IN) AVG(IN)	OCCURPENCES WIN(SO.IN)

TABLE 9 - Continued

AIRCRAFT TYPE: HYBRID

AIRCRAFT SERVICE LIFE: 60000 HOURS		ACTUAL AVERAGE FATIGUE LIFE: 104352 MOURS		12090	15060	16750	23436	6263	2871	250			D10/	79/9	1007	4742	1677	2046	2620	3276	700T	5118	9200	279		RESIDUAL STRENGTM EQUALS FAIL-SAFE STRENGTM AIRCRAFT NO. FLT. WOURS	
AIRCRAFT	372-SID-1769	ACTUAL AVER		1000	1250	1563	1953	109	524		574	6	900	7.50	65 11	100	346	667	929	780	975	1219	1523	7 9 9		RESI	
	STRUCTURAL ELEMENT: FUS-STR-SID-1769	DUKS		200	200	200	200	200	002	200	50	200	250	907	9 00	907	200	206	902	500	200	200	200	200			
AIRCRAFT IN FLEETS 500	STRUCTURAL	GE FATIGUE LIFE: 175380 HOUKS	ALS(HRS)	52	52	52	\$ 2	52	52	ε;	C X	C;	C :	52	C X	3 %		25	25	£	52	52	52	25	NUMBER OF SPECIAL INSPECTIONS CONDUCTED: A NUMBER OF STRUCTURAL MODIFICATIONS: 1 FINAL ACTUAL AVERAGE MODIFIED FATIONE LIFE: NUMBER OF AIRCRAFT MODIFIED IN SERVICE:	STRUCTURAL FAILURES AFT NO. FLT. HOURS	
NIMBER OF		PREDICTED AVERAGE	IMSPECTION INTERVAL	INITIAL	~	m	4	•	4 (~ (• (•	3		7.	1 4	. <u></u>	16	17	51	6	20	(T	2 22	MUMBER OF SPECIAL I MUMBER OF STRUCTURA FIMAL ACTUAL AVERAGE NUMMER OF AFRCRAFT	STRUCTU	

TABLE 9 - Continued

Oleman Signi Ligginia

AINCRAFT SEGVICE LIFE: 60500 WOURS Sed the applicant to stable on Sed

ACTUAL AVERAGE FATIGUE LIFE: 377549 MOURS STAUCTUREL FLEWERT: FUSHSTO-SIC-1940 paenicies evence extin e life: 1996on Ponds

RUMPER AND TIVE IN PLITIBITION OF AIRCRAFT DEFECTS

PPODUCTION DEFECTS 0 0	SPECIAL 0 0 0. 0.
	INSPECTION O-LEVEL
SEFFICE DAMAGE	MINAGEM AND LENGTH OF COACKS RETECTED AT EACH LEVEL OF TASPECTION LEVEL O C C C C C C C C C C C C
30 l o o o o	ENGTH OF COACKS RETE P-LFVEL 0.00000000000000000000000000000000000
F125T CWACK 5 2920A 593A5 96630	ALENER AND L
(CCURPERCES WIN(MPS) WAK(MPS) AVG(WRS)	DCCJARENCES MINCES MAK(IN) MAK(IN)

I>TESVALS (*		Belever standard	H-LEVEL	C-LEVEL	DALEYEL	SPECIAL
	OCCURRENCES FR(SQ.IM)	5 6	o .	<u>د</u> ق	c ,,	•
ID+	PAX (\$0, Th)	6.	* * *		• • • •	d o
25 260 1056 25 260 1250 25 260 1563 25 260 1563 25 260 2563	INSPECTION INTER	VALS(HFS)				
25 200 1563 25 200 1563 25 200 200 1563 25 200 200 200 200 200 200 200 200 200 2	1000	7,	200	1066	12000	
5.00 000 5.00 000 5.00 000	74114	:	260	1250	15000	
949 1561 102	į H	X	346	1563	13750	
500	n v	; x	6. C	1993	23438	
	· w	X	200	9 4 9	42.3	

STRUCTURAL FAILURES
AIRCHAFT 10. FLT. MOUFS Ser.28 323 RESIDUAL STRENGTH EQUALS FAIL-SAFE STRENGTH AIRCRAFT NO. FLT. HOWRS 55284

TABLE 9 - Continued

AIRCHAPT TYPES HYBRID

NUMBER OF AIRCHAFT IN PLEETS 500	AINCHAFT BENVECE LIFEL - 60000 HOUNK
STRUCTURAL ELEMENTS PUS-SIR-	910-1660
PREDICTED AVERAGE FATIGUE LIFE: 177400 HOURS	ACTUAL AVERAGE FATIGUE LIFET 185281 HOURS
INTIAL INSPECTION IN	tenvala:
C-FEASF 15000 HDRI C-FEASF 1000 HCRI W-FEASF 540 HCRI W-FEASF 58 HCRI	MÅ Må Må
INSPECTION INTERVAL INCHEASE IMPLEMENTED COLEVEL INTERVAL NOW 1250 HOURS DOLEVEL ENTERVAL NOW 15000 HOURS	
INSPECTION INTERVAL INCHEASE IMPLEMENTED C-LEVEL INTERVAL NOW 1868 HOURS C-LEVEL INTERVAL NOW 18750 HOURS	and the second of the second o
- APC-NO 346-ENTERS BERVICE - 36640 HOHRS-FROM START OF BIMO	LATTON
191 CRACK INTITATION PROJECTED AT 19015 FLIGHT HOURS 200 drack intitation projected at 18016 FLIGHT HOURS 3ND CRACK INITIATION PROJECTED AT 184705 FLIGHT HOURS SLOW CRACK GROWTH MATE = 1800109 INCHES/HOUR PAST CRACK GROWTH MATE = 180042P INCHES/HOUR	
DeLEVEL INSPECTION PERFURMED ON AZO NO. 350 AT 12000 HOURS	
INSPECTION INTERVAL INCREASE IMPLEMENTED COLEVEL INTERVAL NOW 1953 HOURS DOLGVEL INTERVAL NOW PROSE MOUND	**************************************
A/C NO. 350 EXPERIENCES 157 CHACH INTITATION AT 19415 HOUR CHACK-ENSTATES INTERNALLY ELEMENT FAILURE PROJECTED AT 49016 FLIGHT HOURS	
DELEVEL INSPECTION PERFORMED IN AVC NO. 350 AT 24000 HOURS	3
ANG-NO 550 HAS INTERNAL FIRST CHACK SECTIME EXTERNAL AT- 2.	TO INCHES AND 44693 REIGHT HEURS
AVC NO. 350 REACHES FAIL-SAFE STRENGTH AT 46088 FLIGHT HO	JA S
DELEVEL INSPECTION PERFORMED ON AVE NO. 350 AT 47438 HOURS	1
AJC NOW "ISS EXPENSINGES SUBMENT FAILURS AS" #4414 FLICHE" HUL Bum up Crack Lengths at Pailure # 11,39 inches Residual Strength at Failure # ,13 ultimate	JAS
INSPECTION INTERVAL DECREASE IMPLEMENTED	
C-LEVEL INTERVAL NOW AND HOURS D-LEVEL INTERVAL NOW ARDS HOURS	
FLEET WIDE SPECIAL INSPECTION PERFORMED	
INSPECTION INTERVAL NOW 10754 MOUNS DOLEVEL INTERVAL NOW 10754 MOUNS	

多年,1976年1月1日,1986年1月1日,1986年1月1日,1986年1月1日,1986年1日,

TABLE 9 - Concluded

AIRCRAFT TYPE: HYBRID

NUMBER OF AIRCRAFT IN FLEFTS SOR ARRONARY BERVICE LIFES	60000 HBUHS
STRUCTURAL FLEMENT: FUS-STR-SID-1940	
PREDICTED AVEHAGE FATIGUE LIFE'S 399600 HOURS ACTUAL AVEHAGE FATIGUE LI	FE1 377569 HOURS
. INTITAL INSPECTION-INTERVALS	
A-LEV(L 25 MOURS C-LEVEL 1000 MOURS	···
Delevel 18000 HOURS	
INSPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1750 HOURS D-LEVEL INTERVAL NOW 17500 HOURS	
A/C NO. 323 ENTERS SERVICE 27350 HOURS FROM START OF SIMULATION	
IST CMACK INITIATION PROJECTED AT 29298 FLIGHT HOURS 2ND CRACK INITIATION PROJECTED AT 327287 FLIGHT HOURS 3HB CMACK INITIATION PROJECTED AT 616554 FLIGHT HOURS SLOW CRACK GROWTH RATE = .000112 INCHES/HOUR FAST CHACK GROWTH RATE = .006797 INCHES/HOUR	the constant the second section of the section of the second section of the second section of the second section of the section of the second section of the
INSPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NUM 1563 NOURS O-LEVEL INTERVAL NUM 18750 HOURS	
D-LEVEL INSPECTION PERFORMED ON AZO NO. 323 AT 12000 HOURS	
INSPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1953 HOURS	
A/C NO. 573 EXPERIENCES IST CRACK INITIATION AT 29798 HOURS	
CHACH INITATES INTERNALLY	mar \$15 tig syptem spectages bosons as once a respectation of
DELEVEL INSPECTION PERFORMEN ON AZC NO. 323 AT 30750 HOURS	
-AZC NO. 323 HAR INTERNAL FIRST CHACK RECOME ENTERNAL-AT. 2.74-INCHES AND	IT- HOURS
D-LEVEL INSPECTION PERFORMED ON AZO NO. 323 AT SAIRA HOURS	
A/C NO. 523 REACHES FAIL-SAFE STRENGTH AT 55284 ALIGHT HOURS	
A/C NO. 123 EMPERINCES LEFMENT FAILURE AT 56028 KLIGHT HOURS SUM OF CRACK LENGTHS AT FAILURE # 17.05 INCHES RESIDUAL STRENGTH AT FAILURE # .36 ULTIMATE	
INSPECTION INTERVAL DECREASE IMPLEMENTED	The Couper State Control of the Cont
CHLEVEL INTERVAL NOW BROS HOURS DHEFFEL INTERVAL NOW BROS HOURS	
FLEET WIDE SPECIAL INSPECTION PERFORMED	

TABLE 10. DEMONSTRATION RESULTS FOR FUSELAGE - STRINGER, TOP

	Defects Per Million SAIFE	n Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	0.00 0.00 7.30 3.03 2.53	0.00 0.20 0.33 2.78 3.38
Total	12.86	6.69
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.00 0.00 1.67 0.17 0.17	0.00 0.00 0.00 0.00 0.00
Total	2.01	0.00
Fail-Safe Damage Failures Service Damage Production Defects	0.67 0.00 0.63 0.33	0.00 0.06 0.33

TABLE 10 - Continued

ATECRAFT TYPET HYBRID

NUMBER OF AIRCRAFT IN FLIFTS - 500

ATHCHAFT SERVICE LIFET 60000 HIMES

SUMMARY OF STRUCTURAL FLEMENTS FUS-STR-TOP

NUMBER AND TIME TO INTITATION OF AIRCHAFT DEFECTS

	FIRST CRACK	COHRUSTON	SERVICE DAMAGE	PRODUCTION DEFECTS
	*******			**********
OCCURRENCES	PAA	60	19	10
416(883)	1945	ዓ ስላ ዞ	4445	
(PHH) 1 AV	4,44,44	4.7424	47747	
AVI. (HHS)	4.5456	4 4 14 4 2	44H9n	****

NUMBER AND LENGTH OF CHACKS DETECTED AT LACH LEVEL DE INSPECTION

	A-LEVEL	N=LFVFL	C-LEVEL	D-L f Vt I	SPECTAL
		******		*****	*****
OCCUMBENCES	()	n	214	41	16
MIN(IN)	0.	٥.	. 30	. 19	
MAX(IN)	0.	0.	12.43	14.44	4.74
AVG(1N)	Λ.	n .	1.20	1,34	1,43

NUMBER AND AREA OF CORRUSTON DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

	A-1 F V + L	H=1+VF1	(=1 t v t L	nat the	SPECTAL
DOCUMENTACES	0	11	511	1	,
MINISO, INT	0.	n.	, 40	1.10	u, a i
*AX(80,1N)	ů,	η.	, is j n is	73,04	17. 04
AVI. (31), 14)	и,	1	ts jame	31.69	jo na
INSUFCTION IN	11147414(1145)				
INITIAL	<i>የ</i> ዓ	4) // (4	1000	12000	
SHOWLEST	پهير	ing	an u	1256	
LONGEST	يعفر	e3 (3 t)	LUNA	23038	

NUMBER OF SPECIAL INSPECTIONS CONDUCTION OF NUMBER OF ATRICIALS MODIFICATIONS: A RESIDENCE OF NUMBER OF ATRICIAL MODIFICATIONS.

818	OCTORAL FAILURES -	
ATREPATA NIA.	FLT. HOURS	STA. NO.

A f,	51581	1080
# HA	54497	1 100

RESIDUAL STRENGTH	FUUALS FAIL-SAFE	81R(NG14
ATHCHAFT NO.	FLT. H(HIMB	STA. NO.
• • • • • • • • • • •	*****	******
440	47917	0500
196	51614	0460
416	46454	0840
در	58605	0470
1 /19	44241	1000
بهج	41104	1080
186	44442	1160
4 4 9	55754	1160
حق	44857	1186
40	46 424	1520
#1	46474	1280
486	52560	1300
429	44806	1120
129	11719	1 160
25	44444	1 (80
` 4	43311	1520
, i	43866	1860
أذر	444	1900
44	35241	5150
444	48543	5740

TABLE 10 - Continued

AIRCRAFT TYPE: HYBRID

NUMBE	NUMBER OF AIRCRAFT IN FLEETS	ET: 500	AIRCRAFI SERVICE LIFE:	VICE LIFE: 60000 MOURS	•••
	5	STRUCTURAL ELEMENT: FUS-STR-10P-1050	US-STR-10P-1050		
PREDICTED	PREDICTED AVERASE FATIGUE LIFE: 201130 MOURS	203130 MOURS	ACTUAL AVERAG	ACTUAL AVERAGE FATIGUE LIFE: 104201 MOURS	MOURS
	3 HMUK	R AND TIME TO INITIA'	NUMBER AND TIME TO INITIATIUM OF AIRCRAFT DEFECTS	CT3	
	FIRST CRACK	MOISOMBOO	SERVICE DAMAGE	PRODUCTION DEFECTS	£ ;
OCCURRENCES MIN(MRS) MAX(HRS) AVG(MRS)	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	c છ 0 0	* * * * *		
	NUMBER AND L	ENGTH OF CRACKS DETE	NUMBER AND LENGTH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION	: IMSPECTION	
	A-LEVEL	BOLEVEL	C-LEVEL		SPECIAL
OCCUMMENCES MIN(IN) MAX(IN) AVG(IN)	e 0		, 77 1, 48 1, 12		•••
	MINNER AND AREA C	OF CORROSION DEFECTS	MUMBER AND AREA OF CORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	EL OF INSPECTION	
	ASLEVEL	B-LEVEL	C-LEVEL		SPECIAL
OCCURRENCES MIM(SO.IN) MAX(SO.IN) AVG(SO.IN)	0 400	0 	, , , , ,		•••

TABLE 10 - Continued

AIRCRAFT TYPE: HYBRID

	ACTUAL AVERAGE FATIGUE LIFF: 104201 MOURS
	11
	VERAGE FATIGUE
EMENT: FUS-STR-10P-1680	
AL EL	MOUF
ICTUR	13130
STRU	LIFE: 20
	FATIGUE
	RAGE
) AVE
	PREDICTED AVERAGE FATIGUE LIFE: 203130 MOURS
	STRUCTURAL ELEMENT: FUS-STR-IGP-1080

										RESIDUAL STRENGTH EQUALS FAIL-SAFE STRENGTH AIRCRAFT NO. FLT. HOURS ************************************
	12000	18750	23438	8203	10254	12817	16022	20027		IL STRENGTH EQUALS AIRCRAFT NO.
	0001	1563	1953	4 5 9 4 5 4	9 (1)	1068	1335	1009	4กูบคร	RESIDU
•	200	500	200	200	200	002	200	200	TED: 1 1 E LIFE: 402532 HOURS CE: 5	
VALS(HRS)	25	, ic	52	. SC	52	25	55	æ	NUMBER OF SPECIAL INSPECTIONS CONDUCTED: 1 NUMBER OF STRUCTURAL MODIFICATIONS: 3 FINAL ACTUAL AVERAGE MODIFIED FATIGUE LIFE: NUMBER OF AIRCRAFT MODIFIED IN SERVICE:	STRUCTURAL FAILURES AFT MG. FLT. MGURS
INSPECTION INTERVALS (MRS)	INITIAL	w 14	· •	· ur	۰. د) P~	•	• •	NUMBER OF SPECIA NUMBER OF STRUCT FINAL ACTUAL AVE NUMBER OF AFRCRA	STRUCTUR AIRCRAFT NG.

のでは、1000年の

TABLE 10 - Continued

SIRCRAFI TYPE: HYBKID

N N	NUMBER OF AIRCRAFT IN FLEET:	ET: 500	AIRCRAFT SERVICE LIFE:	FICE LIFE: 60000 MOURS	•
	15	STRUCTURAL ELEMENT: FUS-STR-TOP-1160	*US-\$1R-TOP-1160		
PREDICTED A	AVERAGE FATIGUE LIFE: 206460 HOURS	206460 HOURS	ACTUAL AYERAGI	ACTUAL AYERAGE FATIGUE LIFE: 136582 HOURS	DURS
	RUMBES	R AND TIME TO INITIA	NUMBER AND TIME TO INITIATION OF AIRCHAFT DEFECTS	נידא	
1	FIRST CRACK	LORROSION	SERVICE DAMAGE	PRODUCTION DEFECTS	.
OCCURRENCES MIN(HRS) MAX(HRS) AVG(HRS)	41 8611 59709 40063	0000	16633 16633 16635		
	NUMBER AND LI	ENGTH OF CRACKS DETI	NUMBER AND LENGIM OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION	INSPECTION	
	A-LEYEL	BOLEVEL	COLEVEL	D-LEVEL SPECIAL	1
OCCURRENCES MIN(IN)		9 6	15.83	. 25 1.60 2.12	25.5
MAXLINJ	• •		¥00.8		1
	NUMBER AND AREA D	F CORROSION DEFECTS	NUMBER AND AREA DF CORPUSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	L OF INSPECTION	
	A-LEVEL	B-LEVEL	C-LEVEL	DelEVEL SPECIAL	표.
OCCURRENCES MIN(SG.IN) MAK(SG.IN) AVG(SG.IN)	6 999		° °°°		•

TABLE 10 - Continued

AIRCRAFT TYPE: MYBRID

60000 HOURS
AIRCRAFT SERVICE LIFET
500
IN FLEETE
NUMBER OF AIRCRAFT IN FLEETS

STRUCTURAL ELEMENTE FUS-STR-13P-1160

ACTUAL AVERAGE FATIGUE LIFE: 136582 MOURS PREDICTED AVERAGE FATIGUE LIFE: 206460 HOURS

	12000	15000	18750	6563	8203	10254	3584	1486	2608	7010	8762	3067	3833	4792	2665	7487	9359	3276	*60*	2116
	1000	1250	1563	547	684	854	562	374	467	584	730	556	319	366	904	624	780	27.3	341	123
	200	200	200	200	200	200	200	200	200	500	200	200	200	200	200	500	902	200	200	902
ALS(HRS)	52	25	25	25	52	52	52	52	25	52	52	52	52	52	25	25	52	25	52	\$2
INSPECTION INTERVALS(HRS)	INITIAL	~	•	•	w	•	_	•	•	07	### ###	12	13	-	15	. 16	-		•	20

1 136582 HOURS 0 NUMBER OF SPECIAL INSPECTIONS CONDUCTED: A NUMBER OF STRUCTURAL MODIFICATIONS: 0 FINAL ACTUAL AVERAGE MODIFIED FATIGUE LIFE: NUMBER OF AIRCRAFT MODIFIED IN SERVICE: 0 RESIDUAL STREMETH EQUALS FAIL-SAFE STREMETH
AIRCRAFT NO. FLT. HOURS 186 FLT. HOURS STRUCTURAL FAILURES AIRCRAFT WO.

58552 55754

TABLE 10 - Continued

をいる状態のながらないのであるからから、あつけれているがあれるのであった。 (Bene Market) (Market) (Ma

AINCRAFT TYPE: HYBRID

: 60060 HDURS	LIFE: 104352 HOURS	PRODUCTION DEFECTS 6	39EC1AL 30 10 10 1.59	PECTION SPECIAL O
AIRCRAFT SERVICE LIFF:	SIR-10P-1768 actual average fatigue Life:		NUMBER AND LENGTH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION LEVEL 8-LEVEL C-LEVEL D-LEVEL 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	A-LEVEL H-LEVEL C-LFVEL C-LFVEL O-LEVFL O-LEVFL O-LEVFL O-C-LFVEL O-C-C-LFVEL O-C-C-C-C-C-C-C-C-C-C-C-C-C-C-C-C-C-C-C
E1: 500	STRUCTURAL ELEMENT: FUS-STR-TOP-1760; 1753R0 MDURS	NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS I CORROSION SERVICE DAMAGE 1 0 0 28319 0 28514	LENGTH OF CRACKS DETECTE B-LEVEL 0 6 6 0	OF COPROSION DEFECTS DE H-LEVEL
MUMBER OF AIRCRAFT IN FLEET:	STRUCTURAL ELE ¹ AVEMAGE FATIGUE LIFE; 1753RO MDURS	MUMBE FIRST CRACK ************************************	AUMBER AND B A-LEVEL 0 0.00	NUMBER AND AREA A-LEVEL 0 0
	PREDICTED A	OCCURRENCES MIN (HRS) MAX(HRS) AVG(HRS)	OCCURRENCES MIM(IN) MAX(IN) AVG(IN)	OCCURRENCES MIN(SG.IN)

HELEVEE 0 0 0 0

A-LEVEL

OCCURRENCES MIN(SG.IV) MAX(SG.IN) AVG(SG.IN)

TABLE 10 - Continued

AIRCRAFT TYPE: HYBRID

66000 HOURS
IRCRAFT SERVICE LIFF:
AIRCRAF
500
t in pleet:
HUMBER OF AIRCRAFT
RUMBE

STRUCTURAL ELEMENT: FUS-STR-TOP-1760

ACTUAL AVERAGE FATIGUE LIFE: 104352 MOURS	
PREDICTED AVERAGE FATISUE LIFE: 1753R0 HOURS	INSPECTION INTERVALS(HRS)

	12000	15000	18750	23438	A203	2871	1589	4486	5608	7010	2453	3067	3633	4792	2000	7487	6356
	1006	1250	1563	1953	684	239	599	374	467	584	204	256	319	399	609	624	780
	200	200	200	200	500	200	200	500	200	200	200	200	250	200	200	200	200
LS(HRS)	52	25	25	25	5%	25	25	25	25	52	25	25	52	52	25	25	52
INSPECTION INTERVALS(HRS)	INITIAL	~	m	•	'n	•	-	•	•	10	grá gui	12	13	14	15	16	11

AUMBER OF SPECIAL INSPECTIONS CONDUCTED: 2
AUMBER OF STRUCTURAL MODIFICATIONS: 1
FINAL ACTUAL AVERAGE MODIFIED FATIGUE LIFF: 129189 HOURS
RUMBER OF AIRCRAFT WODIFIED IN SERVICE: 0

STRUCTURAL FAILURES
AIRCRAFT NO. FLI, HOURS

RESIDUAL STRENGTH FOURLS FAIL-SAFE STRENGTH AIRCRAFT NO. FLT. HOURS

Control of the state of the sta

TABLE 10 - Continued

AIRCRAFT TYPE, HYBRID

PREDICTED AVERAGE FATEGUE LIFFE 203130 HOURS	ACTUAL AVERAGE FATIGUE LIFF: 104701 HOUR
THE PROPERTY OF THE PROPERTY O	TON THEE WALE
A-LFVEL	25 HOURS
Celfvel 10	
D-LEVEL 150	
I/C NO. 26 ENTERS SERVICE 1500 HOURS FROM START O	F STMULATION
	MOURS
PND CRACK INITIATION PROJECTED AT 191414 FLIGHT	HOURS
AND CRACK INITIATION PROJECTED AT 202930 PLIGHT	
PAST CRACK GROWTH RATE	
NOPECTION INTERVAL INCREASE IMPLEMENTED	and the Commence of the Commen
CHEVEL INTERVAL NOW 1750 HOURS	
D-LEVEL INTERVAL NOW 15000 HOURS	THE TRANSPORT OF THE PROPERTY
D-FERET INSECTION DEMEDGMED ON TVC MO. SO TA 1500	• HOURS
PO NO PA-PAPENTENCES 181 CRACK THEFTATTON-AF- 198	OF THOUSE IT IS IN THE THE STREET OF THE STR
CRACK INITATES INTERNALLY ELEMENT FAILURE PROJECTED AT SIRR! FLIGHT HOURS	
CREACH LATERAL CHAREFUL HI STAEL LEIGHT HOUNG	
INSPECTION INTERVAL INCREASE IMPLEMENTED	•
CHERVEL INTERVAL NOW 1543 HOURS	anga kalagan dagan kana dagan perumpan sebagai semakan pendenan pendenan dalah berbera mendelah dagan berbera dagan dagan berbera dagan dagan dagan berbera dagan daga
D-LEVEL INTERVAL NOW 18750 MOUNS	
 	B. A HOUR Branch and the Control of
L/C NO. 28 HAS INTERNAL FIRST GRACK RECOME EXTERNAL	AT & SA TARAPA AND MIGHT PLICALLY MANAGE
	AT PATE INCHES SON STADE LETON HOUSE
	Management of the state of the
AC NO. PR REACHES FAIL-BAFE STRENGTH AT 43393 FLI	Mater transmissioner von Margitia volt arts attest total arts attest or an inches and so the second of the part of
NSPECTION	GHT HOURS
HOPECTION INTERVAL INCREASE IMPLEMENTED	GHT HOURS
NSPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 73-38 HOURS D-LEVEL INTERVAL NOW 73-38 HOURS	GHT HOURS
NOPECTION INTERVAL INCREASE IMPLEMENTS C-LEVEL INTERVAL NOW 1953 HOURS N-LEVEL INTERVAL NOW 73436 HOURS	GHT HOURS
NAPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1953 HOURS D-LEVEL INTERVAL NOW CYASE HOURS F-LEVEL INSPECTION PERFORMED ON A/C NO. 28 AT 4575 I/C NO. 28 EMPERINCES ELEMENT FAILURE AT 51561 FLI	GHT HOURS
INSPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1953 HOURS N-LEVEL INSPECTION PERFORMS ON A/C NO. 28 AY 4575 I/C NO. 28 EMPERINCES ELEMENT FAILURE AT 31561 FLT BUM OF CRACK LENGTHS AT FAILURE & 64.42 INCHES	GHT HOURS
NOPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1953 HOURS D-LEVEL INTERVAL NOW 7,438 HOURS V-LEVEL INSPECTION PERFORMED ON A/C NO. 28 AT 4575 I/C NO. 28 EMPERINCES ELEMENT PAILURE AT 51561 PLI BUM OF CRACK LENGTHS AT FAILURE # 64.27 INCHES RESIDUAL STRENGTH AT FAILURE # 64.27 INCHES	GHT HOURS
CHERCTION INTERVAL INCREASE IMPLEMENTED CHEVEL INTERVAL NOW 1953 HOURS CHEVEL INTERVAL NOW 1953 HOURS CHEVEL INSPECTION PERFORMED ON A/C NO. 28 AT 4575 LIC NO. 28 EMPERINCES ELEMENT FAILURE AT 51561 FLI BUM OF CRACK LENGTHS AT FAILURE # 64.27 INCHES RESIDUAL STRENGTH AT FAILURE # 484 ULTIMATE	GHT HOURS
NAPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1953 HOURS D-LEVEL INSPECTION PERFORMED ON A/C NO. 28 AY 4575 I/C NO. 28 EMPERINCES ELEMENT FAILURE AT 3150 FLT BUM OF CRACK LENGTHS AT FAILURE & 4.27 INCHES RESIDUAL STRENGTH AT FAILURE & 28 ULTIMATE NSPECTION INTERVAL DECREASE IMPLEMENTED C-LEVEL INTERVAL NOW 688 HOURS	GHT HOURS
NAPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1953 HOURS N-LEVEL INSPECTION PERFORMED ON A/C NO. 28 AY 4575 HAVE NO. 28 EMPERINCES ELEMENT FAILURE AT 25751 FLI BUM OF CRACK LENGTHS AT FAILURE # 64.2 INCRES RESIDUAL STRENGTH AT FAILURE # 28 ULTIMATE INSPECTION INTERVAL DECREASE IMPLEMENTED	GHT HOURS
NOPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1953 HOURS D-LEVEL INSPECTION PERFORMED ON A/C NO. 28 AT 4575 I/C NO. 28 EMPERINCES ELEMENT FAILURE AT 51561 FLI BUM OF CRACK LENGTHS AT FAILURE & 64.2 INCHES RESIDUAL STRENGTH AT FAILURE & 28 ULTIMATE INSPECTION INTERVAL DECREASE IMPLEMENTED C-LEVEL INTERVAL NOW 684 HOURS D-LEVEL INTERVAL NOW 8203 HOURS	GHT HOURS
INSPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1953 HOURS D-LEVEL INSPECTION PERFORMED ON A/C NO. 28 AT 4575 IVC NO. 28 EMPERINACES ELEMENT FAILURE AT 51501 FLT BUM OF CRACK LENGTHS AT FAILURE & 64.27 INCHES RESIDUAL STRENGTH AT FAILURE & 28 ULTIMATE INSPECTION INTERVAL DECREASE IMPLEMENTED C-LEVEL INTERVAL NOW 684 HOURS D-LEVEL INTERVAL NOW 8805 HOURS PLEET WIDE SPECIAL INSPECTION PERFORMED	GHT HOURS
NOPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1953 HOURS O-LEVEL INSPECTION PERFORMED ON AZONO, 28 AY 4575 FIVE NO. 28 EMPERINCES ELEMENT PAILURE AT 3150 PLT BUM OF CRACK LENGTHS AT FAILURE & 44.27 INCHES RESIDUAL STRENGTH AT FAILURE & 48.27 INCHES RESIDUAL STRENGTH AT FAILURE & 28 ULTIMATE C-LEVEL INTERVAL NOW 684 HOURS D-LEVEL INTERVAL NOW 8205 HOURS PLEET WIDE SPECIAL INSPECTION PERFORMED TNSPECTION INTERVAL INCREASE IMPLEMENTED	GHT HOURS
INSPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1953 HOURS D-LEVEL INSPECTION PERFORMED ON A/C NO. 26 AT 4575 IVC NO. 26 EMPERINCES ELEMENT FAILURE AT 3150 FLT BUM OF CRACK LENGTHS AT FAILURE & 64.27 INCHES RESIDUAL STRENGTH AT FAILURE & 28 ULTIMATE C-LEVEL INTERVAL DECREASE IMPLEMENTED C-LEVEL INTERVAL NOW 664 HOURS D-LEVEL INTERVAL NOW 8205 HOURS FLEET WIDE SPECIAL INSPECTION PERFORMED C-LEVEL INTERVAL NOW 654 HOURS D-LEVEL INTERVAL NOW 6554 HOURS	O HOURS
CHEVEL INTERVAL INCREASE IMPLEMENTED CHEVEL INTERVAL NOW 1953 HOURS DHEVEL INSPECTION PERFORMSO ON A/C NO. 28 AY 4575 FIVE NO. 28 EMPERINCES ELEMENT PAILURE AT 31501 PLT SUM OF CRACK LENGTHS AT FAILURE & 44.27 INCRES RESIDUAL STRENGTH AT FAILURE & 44.27 INCRES RESIDUAL STRENGTH AT FAILURE & 48.27 INCRES CHEVEL INTERVAL NOW ARE HOURS DHEVEL INTERVAL NOW REDS HOURS FLEET WIDE SPECIAL INSPECTION PERFORMED TOSPECTION INTERVAL INCREASE IMPLEMENTED CHEVEL INTERVAL NOW ASE HOURS DHEVEL INTERVAL NOW ASE HOURS	O HOURS
CHEVEL INTERVAL INCREASE IMPLEMENTED CHEVEL INTERVAL NOW 1953 HOURS DHEVEL INSPECTION PERFORMSO ON A/C NO. 28 AY 4575 FIVE NO. 28 EMPERINCES ELEMENT PAILURE AT 31501 PLT SUM OF CRACK LENGTHS AT FAILURE & 44.27 INCRES RESIDUAL STRENGTH AT FAILURE & 44.27 INCRES RESIDUAL STRENGTH AT FAILURE & 48.27 INCRES CHEVEL INTERVAL NOW ARE HOURS DHEVEL INTERVAL NOW REDS HOURS FLEET WIDE SPECIAL INSPECTION PERFORMED TOSPECTION INTERVAL INCREASE IMPLEMENTED CHEVEL INTERVAL NOW ASE HOURS DHEVEL INTERVAL NOW ASE HOURS	O MOURS
NOPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1953 HOURS D-LEVEL INTERVAL NOW 25436 HOURS V-LEVEL INSPECTION PERFORMED ON A/C NO. 28 AY 4575 IVE NO. 28 EMPERINCES ELEMENT PAILURE AT 31561 PLT BUM OF CRACK LENGTHS AT FAILURE B 64.47 INCRES RESIDUAL STRENGTH AT FAILURE B , 28 ULTIMATE NSPECTION INTERVAL NOW 684 HOURS D-LEVEL INTERVAL NOW 6203 HOURS INSPECTION INTERVAL INCREASE IMPLEMENTED C-1 FVFL INTERVAL NOW 654 HOURS D-LEVEL INTERVAL NOW 654 HOURS THSPECTION INTERVAL NOW 6558 HOURS THSPECTION INTERVAL NOW 10258 HOURS	O HOURS
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D-LEVEL INSPECTION PERFORMED ON A/C NO. 28 AT 4575 BYC NO. 28 EMPERINCES ELEMENT PAILURE AT 5154 FLT BUM OF CRACK LENGTHS AT FAILURE # 64.47 INCHES RESIDUAL STRENGTH AT FAILURE # 88 ULTIMATE INSPECTION INTERVAL DECREASE IMPLEMENTED C-LEVEL INTERVAL NOW 684 HOURS D-LEVEL INTERVAL NOW 8203 HOURS FILEET WIDE SPECIAL INSPECTION PERFORMED THSPECTION INTERVAL NOW 654 HOURS D-LEVEL INTERVAL NOW 654 HOURS THSPECTION INTERVAL NOW 10254 HOURS THSPECTION INTERVAL NOW 10254 HOURS THSPECTION INTERVAL NOW 10254 HOURS THSPECTION INTERVAL NOW 1026 HOURS	O MOURS
CHEVEL INTERVAL NOW 1953 HOURS O-LEVEL INTERVAL NOW 1953 HOURS O-LEVEL INSPECTION PERFORMSO ON A/C NO. 28 AY 4575 A/C NO. 28 EMPERINCES ELEMENT PAILURE AT 31501 FLT. BUM OF CRACK LENGTHS AT FAILURE & 64.27 INCHES RESIDUAL STRENGTH AT FAILURE & 64.27 INCHES RESIDUAL STRENGTH AT FAILURE & 64.27 INCHES C-LEVEL INTERVAL NOW 684 HOURS D-LEVEL INTERVAL NOW 8205 HOURS C-LEVEL INTERVAL NOW 834 HOURS D-LEVEL INTERVAL NOW 834 HOURS C-LEVEL INTERVAL NOW 10254 HOURS THSPECTION INTERVAL NOW 10254 HOURS C-LEVEL INTERVAL NOW 10354 HOURS INSPECTION INTERVAL NOW 1064 HOURS C-LEVEL INTERVAL NOW 1064 HOURS THSPECTION INTERVAL NOW 1064 HOURS C-LEVEL INTERVAL NOW 1064 HOURS INSPECTION INTERVAL NOW 1281 HOURS INSPECTION INTERVAL NOW 1281 HOURS INSPECTION INTERVAL INCREASE IMPLEMENTED C-LEVEL THYRRYSE NOW 1335 HOURS	O HOURS
THE PROCESS OF THE PART OF THE PROCESS OF THE PART OF	O MOURS

TABLE 10 - Concluded

ATRCHAFT TYPEL HYBRID

NUMBER IN ATRIBART IN PLEETS SOO	REPORATE SERVICE TEFT - MOODO HOURS
STRUCTURAL ELEMENTS FUS-ST	H-7(1P=1400
PHENICTED AVENAGE FATIGUE LIFEL POPOPO HOURS	ACTUAL AVERAGE PATIGUE LIFEE - 247193 HOURS
"THITTISE INSPECTION	THIPHVALS
R≈(₹∀₹€ 200 + C ~L ₹ ∀ ₹	
INSPECTICL INTERVAL INCREASE IMPLEMENTED C-LEVEL INTERVAL NOW 1250 MOURS """"	
INSPECTION INTERVAL INCREASE IMPLEMENTED COLEVEL INTERVAL NOW 1993 MOURS O-LEVEL INTERVAL NOW 18750 HOURS	
AZC NO. WAS ENTERS SERVICE WASSO HINNS FROM START OF ST	MULATION
THE THACK THITTS THE PROJECT AT PRICE FIRST FURNITHOUS PROJECT OF PROSPECT PROSPECT OF THE PROPERTY OF THE PRO	No. 1
INSPECTION INTERVAL INCREASE IMPLEMENTED COLEVEL INTERVAL NOW 1003 HOURS DOLEVEL INTERVAL NOW 2338 HOURS	and the second of the second o
	前後 ,
A/C NO. 486 EXPERIENCES 1ST CHACK INTITATION AT 25911 H CRACH INSTATES INTERNALLY FLEMENT FAILURE PROJECTED AT SARST FLIGHT HOURS	· · · · · · · · · · · · · · · · · · ·
D-LEVEL IMAPECTION PERFORMED ON AVO NO. MAN AT 35038 HO	
AZC NO. WAN HAS INTERNAL FIRST CHACK RECOME EXTERNAL AT-	PATO INCHES AND STEAM FETANT HOUSE
AZC NO. HAN REACHES FAIL-SAFE STRENGTH AT 52540 FLIGHT	ношка
AZC NO. MAG EXPENSIVES FLEMENT FATLURE AT SMROT FLIGHT SUM OF CHACK LENGTHS AT FAILURE & 27,00 INCHES Hesthial Strength at failure & 27,00 inches	
INSPECTION INTERVAL DECREASE IMPLEMENTED COLEVEL INTERVAL NOW CARA HOURS DOLEVEL INTERVAL NOW AZON HOURS	
FLEFT WINE SPECIAL INSPECTION PERFORMED	

TABLE 11. DEMONSTRATION RESULTS FOR WING - ACCESS FRAME

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	3.03 2.47 4.83 0.16 0.30	0.04 0.49 0.40 0.81 0.77
Total	10.79	2.51
Corrosion Detected		
Preflight Service Phase Overhaul Special	2.63 2.00 2.73 0.03 0.03	0.00 0.00 0.00 0.00 0.00
Total	7.42	0.00
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.00 0.00	0.18 0.00 0.00

TABLE 11 - Concluded

AIRCRAFT TYPE: HTBRID

60000 HOURS	
AIRCRAST SERVICE LIFE: 60000 MOURS	SUMMARY OF STRUCTURAL ELEMENT: MNG-ACC-FRM
500	6
HUMBER OF AIRCRAFT IN FLEET: 500	AMERIKANS

NUMBER AND TIME TO INITIATION OF AIRCPAFT DEFECTS

PEDDUCTION DEFECTS 0 0	
SERVICE DAMAGF PHODU	GUMBER AND LENGTH OF CHACKS DETECTED AT EACH LEVEL OF INSPECTION
CORRGSIOA 236 869 59937 36172	NGTH OF CRACKS DETEC
FIRST CRACK 473 475 2362 59972 43548	AUMRER AND LEG
NCCURRENCES MIN(HRS) MAX(HR3) AVG(HPS)	

SPECIAL 990116 1,53
0-LEVEL 5 5.29 .62
C=LEVEL 125 30 1,97
2.11
A-LEVEL 91 57 2.09
CCCURRENCES MIN(IN) MAX(IN) AVG(IN)

	SPECIAL 			RESIDUAL STRENGTH EGUALS TRILLTONES STA. NO. Jacobset 40.
AND APEA OF CHPROSION DEFECTS DETECTED AT FACH LEVEL OF INSPECTION	0-LEVEL 1 5-66 5-66 5-66	12000 12006 29297		RESIDUAL STRENGTH EGURL AIDCRET NO. FLT.
FECTS DETECTED AT FA	C-LEVEL B2 87.33 4.35	1000 68 2461		Wat to the state of the state o
30 NOISOBBOOK DE	H-LEVEL - 60 - 64 - 5.58	200 200 200	CONDUCTED: 7 IONS: 5 SFRVICE: 6	ES STA. MU.
MIJWBER AND A	1	INSPECTION INTERVALS(HRS) INITIAL SHORTEST 25	NUMBER OF SPECIAL INSPECTIONS CONDUCTED: NUMBER OF STRUCTURAL MODIFICATIONS: 5 NUMBER OF AIRCRAFT WOSIFIED IN SFRVICE:	STRUCTURAL FAILURES in. FLT. HOURS
	CCCURRENCES Min(SO.14) Mar(SO.14) Avg(SO.14)	INSPECTION INITIAL SHORTEST LONGEST	NUMBER OF NUMBER OF NUMBER OF	AIRCRAFT NO.

TABLE 12. DEMONSTRATION RESULTS FOR WING - SPAR, AFT

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	0.83 2.30 0.83 0.03	0.11 1.62 0.72 1.89 4.42
Total	3.99	8.76
Corrosion Detected		
Preflight Service Phase Cverhaul Special	0.23 0.90 0.17 0.00 0.00	0.35 0.00 0.00 0.00 0.00
Total	1.30	0.35
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.10 0.10	0.04

TABLE 12 - Concluded

LIRCRAFT TYPE: HYBRID

50000 HUUKS			PRODUCTION DEFECTS	696466666666666666666666666666666666666		• • • • • • • • • • • • • • • • • • •			3756.146			• 6	•	2	SPECIAL	7.00000	0	•	• •	•								FAIL-SAFE STRENGTH HOURS STA. NO.	
AIRCRAFT SERVICE LIFE: 6	-467	DEFECTS				,	L OF INSPECTION		4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		. 56	•26	•56	CORROSIUN DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	D-LEVFL	*****	0	•	.	• n		17060	12000	23038				AL STRENGTH EQUALS FAIL-SAFE FING. FLT. HOURS	***********
AIRCRAFT	L ELEMFNTS WIG-SPR	ATTON OF AIRCRAFT DEFECTS	ICE DAM		30568	42219	DETFCTED AT EACH LEYEL	Celtivitie	1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	52	•33	1.14	•\$•	DETECTED AT EACH !	C-LEVEL		، ۳	1.00	v 0 . u	5		1000	1000	1953				RESIDUAL ST AIRCRAFT NO.	***************************************
FT: 500	SUMMARY OF STRUCTURAL ELEMENTS BNG+SPR+AFT	NUMBER AND TIME TO INITIATION	COPPUSION	39	ウトサビ (1)	33891	AND LENGTH OF CRACKS DET	B-LEVEL		69		1.24	. 74	F CORROSIUN DEFECTS	R-LEVEL	\$! ! B B B B	72	96.	2 2 2 4 4			200	200	002	1FD: 0	•	راود	STA. NO.	• • • • • • • • • • • • • • • • • • • •
R OF AIRCRAFT IN FLEET:	S	RUMBA	FIRST CRACK	165	1526 59864	43851	NUMBER AND L	A-LEVEL		25	.57	. O. I	• 1.5	HIMBER AND AKEA UF	A-LEVEL	0 r	· •	3 30	1.74	•	VALS(HRS)	25	25	25	SPECIAL INSPECTIONS CONDUCTED:	STRUCTURAL MODIFICATIONS	AIRCHAFT MGDIFIFD IN SERVICE:	STRUCIURAL FAILURES FLT, HOURS	
NUMPER OF				OCCURRENCES	MAX (HRS)	AVG(HRS)				DCCURRENCES	(ZI) XII	(RT) (F)	(27)942			S SUN SECTIONS	MINES IN	MAX (SO IN)	AVG(SD. IN)		INSPECTION INTERVALS(HRS)	INITIAL	SHORTEST	LONGEST	9	<u>u</u> :	<u>+</u>	STR.	

TABLE 13. DEMONSTRATION RESULTS FOR WING - SPAR, CENTER

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	0.67 0.90 1.20 0.00 0.00	0.00 0.00 0.00 0.20 0.00
Total	2.77	0.20
Corrosion Detected		
Proflight Service Phase Overhaul Special	0.20 0.10 0.93 0.06 0.00	0.00 0.00 0.00 0.00 0.00
Total	1.29	0.00
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.00 0.03	0.02 0.00 0.00

TABLE 13 - Coacluded

,这种是一个时间,我们就是一个时间,我们就是一个时间,我们也不是一个时间,我们也不是一个时间,我们也会会会会会会会会会会会会会会会会会会会会会会会会会会会会会会 第一个时间,我们就是一个时间,我们也不是一个时间,我们也不是一个时间,我们也不是一个时间,我们也不是一个时间,我们也会会会会会会会会会会会会会会会会会会会会会会

AIRCRAFT TYPF: HYBRID

60000 HOURS AIRCRAFT SERVICE LIFE: 500 NUMBER OF AIRCRAFT IN FLEFF:

SUMMARY OF STRUCTURAL ELEMENT: MNG-SPR-CEN NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

PRODUCTION DEFECTS 1
SERVICE DAMAGE
COPROSION 46 5782 59926 28464
FIHST CRACK 116 1236 59783 24351
OCCURPENCES MIN(HRS) MAX(HRS) Avg(HRS)

	SPECIAL 0 0.0	
L OF INSPECTION	D-LEVEL 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	HAMPER AND AREA OF CORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION
MIMMER AND LENGTH OF CRACKS DETFCTED AT EACH LEVEL OF INSPECTION	C-LEFFL 36 36 1.65	FS DETECTED AT EACH
ENGTH OF CRACKS DE	H-LEVEL 27 2,61 7,61	TE CORPOSION DEFECT
SHIMBER AND L	A-LEVEL 20 59 1.95	NUMBER AND AREA O
	OCCURRENCES MIN(IN) MAX(IN) AVG(IN)	

SPECIAL SPECIA		,	RESIDUAL STRENGTH FOUALS FAIL+SAFE STRENGTH IRCRAFT NO. FLY. HOURS STA. NO.
D-LEVEL 2 2 4 56 8 15 6 35	12000 12000 2343A		RESIDUAL STRENGTH FOUR AIRCRAFT NO. FLT
26 26 .93 13,52	1000 684 858		A I K C P I I I I I I I I I I I I I I I I I I
8-LEVEL 3 3 3 7 67 7 1.62	200 200 200 200	(ED = 10 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
A-LEVEL 1. GA 2.5A 2.22	17PV4L3(HRS) 25 25 25 25	NUMBER OF SPECIAL INSPECTIONS CONDUCTED: NUMBER OF STRUCTURAL MODIFICATIONS: 0 NUMBER OF AIRCRAFT WINIFIED IN SERVICE:	STRUCTURAL FAILURES FIT, HOURS
OCCURRENCES MIN(SQ.IN) MAX(SQ.IN) AVG(SQ.IN)	INSPECTION INTERVALS(HRS) INITIAL SMOPTEST LONGEST	NUMBER OF SPENUMBER OF STR	AIRCRAFT NO.

TABLE 14. DEMONSTRATION RESULTS FOR WING - SPAR, FORWARD

Cracks Detected	Defects Per Million SAIFE	Flight Hours
Gracks Detected		
Preflight Service Phase Overhaul Special	0.73 1.67 0.90 0.00	0.04 0.49 0.40 0.81 0.77
Total	3.30	2.51
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.10 0.90 0.10 0.00	0.00 0.00 0.00 0.00 0.00
Total	1.10	0.00
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.03 0.00	0.18 0.00 0.00

TABLE 14 - Concluded

AINCHAFT TYPE: HYPRID

60coc Hiurs			PRODUCTION OFFECTS	0	; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ; ;				SPECIAL		• 0	• •	•0						• •	•0							S	FLT. HOURS STA. NO.		
AINCHAFT SERVICF LIFE:	2-FED							EL OF INSPECTION	DIFFE						COPFOSITIN GEFFCIS DEJECIEU AT FACH LFVFL, OF IMSPFCIINH	D-LFVEL		e ,	. .	. 6	•	12000	32021	i i			JUSTINIAN STRFNGTH FOURLS FAIL-SAFE	ATRONAFT NO. FL.	A	
AIHCHAFT	SUPPREST OF STRUCTURAL ELEMENTS ANGESPREFAIL	MINSER AND TIME IN INITIALITY WE AINCHAFT DEFECTS	SERVICE DAMAGE	-	30044	50044	1	AND FERSTY IN CHACKS DETFCTED AT EACH LEVEL OF INSPECTION	Colever		77	4.0	- C		S PETECTED AT FAC			h.	200 - 1	4 () ()	a	1000	1001	1925			7.17	DATA TRO	1 1 1 1	
לוני יי לייי	WARY OF STRUCTURA	AAN TIME TO INITI	CURNOSION	25	7595	70007	۲/615	LIGTH THE ERACKS DET	130 3 1 3		20	20.	1.17	٠, ۵			14:14:E-14	- C		44,0	2,19	c	000	0 02	TFD: 6	ت اللونة	•	:- 22 0		
	AIS	RAPANIC	RIAST EVALA		151	45 665	2 \$440	GNA SASSIS.	:	1-rent	1 1 1	V W	16	r.	100 and 100 an		B-LFVFL	* * * * * * *	m :	? L. 3	1.77			7.3	:0413000003 SwillJacki Terrans	o Property and Plant Distriction of the Property of the Proper	Alacase control to the control of	STAILCTINGE FAILURES	PLT HISTORY	111111111111111111111111111111111111111
	e de de mario				OCCURRENCE S	#[#(HDS)	AVG(HRS)					UCCURRENCES	(2) X-1	AVG(18)					OCCURRENCE S	#I#(SG. IF)	MAK(SQ.[N) AVG(SG.14)	(Sam) STRACOINT WHILLIADERS	1417141	SHOK TEST LONGEST	Ų	į ų		\$18		

TABLE 15. DEMONSTRATION RESULTS FOR WING - STRINGER, AFT

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	4.30 7.77 7.17 0.83 1.50	0.20 0.77 0.20 0.85 1.37
Total	21.57	3.39
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.43 0.77 0.13 0.10 0.53	0.02 0.02 0.02 0.02 0.02
Total	1.96	0.10
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.23 0.10	0.04 0.00 0.04

TABLE 15 - Continued

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AIPCKAFT TYPE: HYBRID

LIFE: 60000 HOURS			PRODUCTION DEFECTS		• • • • • • • • • • • • • • • • • • • •	• • • •	•	PECTION	D-LEVEL SPECIAL	******	21 37	.30			INSPECTION	D-LFVEL SPECIAL		0	•	•	0. 12.42		12000	1463	2343k			
AIKCHAFT SENVICE LIFE:	STRUCTURAL ELEMENT: ANG-STR-LSA	SUMMER AND TIME TO INITIATION OF AINCRAFT OFFECTS	SERVICE DAMAGE	~	2398	6556	25961	WITHER ART LERGIH OF CRACKS DEFFCTED AT EACH LEVEL OF INSPECTION	C-LEVEL D-1	******	117	.29		. 55	POPULE AND AREA OF CORRUSIUM DEFECTS DETECTED AT EACH LEVEL OF INSPECTION		*******	ū			•				2785			
.T: 500	SUPMARY HE STRUCTURAL	A GAST INTER THITIAL	CURRUSION))))	203	59430	\$4216	ESGIH OF CRACKS DETFO	molf bel	*****	167	¥ a •	1.75	. 45	F CHPRUSICA DEFECTS L	Hoi F VEL	4 1 1 4 4 4 4	ਰ	1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m 1 m	5.55	2.11		260	200	200	160.00	•	٥
OF AIMEMAFT IN FLEETS	15	33440°s	FIRST CHACK)	7594	64961	440+4	11 HAR WENCH	A-LF VEL	* * * * * * * *	071	\$4.	2.24	96.	स्तिम स्थाप स्थाप	A-LEVEL		S	15 to	5.0	\$ 7 	ALS(HRS)		52	75	* CALCINOSILL SACILLABORIA		SIMPLEMENT WITH LANDINGS 0
# identity				UCCURKENCES	AIN(HRS)	MEX(HFS)	AYG(HPS)				OCCURRENCES	{n1)n[HAX(IL)	(H1)9AT				ICCURRENCES	14(80,14)	*** (SU. ~)	AVE. (59.14.)	INSPECTION INTERAN	INITIAL	SHUMTEST	LOWGEST	THE PROPERTY OF STREET		MONRY OF STREET STREET

RESIDUAL STRENGTH FOUALS FAIL-SAFE STRENGTH AIRCRAFT NO. FLT. HOURS STA. NO.

STA. 6.6.

STANCTOFAL FAILUMES
FLIA HINNS

AIRCHAFT WIL.

TABLE 15 - Concluded

EIPCKAFT TYPE: MTEKID

### ##################################		īs	PERRY OF STRUCTURAL	SUPERFY IF STRUCTURAL ELEMENTS ANG-STROUSA		
1370 2340 10100 3		5 3 14 4 11 L	s and time to Initia	ITION UF AINCHAFT OFFE		
134		FEAST CHACK	COMMOSIDA	SERVICE DANAGE	PRGDUCTION DE	FECTS
1750 1750		i	62	r	×	
STATE STAT	CCOMMENCE	144	75.67	10150		
STATE STAT	KIR(IRO)	2007	553 44	43619	****	
	MAX(FRS) AVG(HRS)	43102	87278	22.59h	4 6 7	
A		200 et a 180	SICTH OF CHACKS OF FE	ECTED AT FACH LEVEL U	FINSPECTION	
A-Livel						19.01.00
1		140414	rolf wfl	C-LEVFL	D-LEVEL	SPECIAL
1		1 1 1		****		•
1.50	A White Party Chan	G	9	\$.	, .	**
1.56 2.97 1.56	ELECTED.	ម្	.50	5	 	3.99
1.04		***	5.56	2000	66	56.
	AVG(I%)	• ti	المارية المارية	ar	2. • 2	•
19		G TANT C T MARKET	JE CHRINGSTON DEFECTS	DETECTED AT FACH LEW	EL UF INSPECTION	
19		 	13041-4	C-LF VFL	D-LEVEL	SPECIAL
19		3)	****	4
	C 4 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	٤	5	3 '	^ :	25.
	ATECON TO	<u>.</u>	• 75	1.00	10.4	77.00
	(1) (C) (C)	ن د	オウ・シ	2.81	10.07	7 7 70
	4VE(Su.14)		a	1.75	(D + F	
T 256 266 1256 23038 23038 15 5 5 60 5 5 4 6 5 5 6 6 5 6 6 5 6 6 6 6 6 6 6 6	INSPECTION INTE	1400	200	1000	12000	
TO SAME 23038 IF SPECIAL INSPECTIONS FOUNDLESS THE STANDER NOTH FOUNDLE FAIL-SAFE STANDER FILL OF FULLS FAIL OF FULLS F	101110	ζ;	007	264	1254	
of SPECIAL POSPECTIONS from Clear 78 of SIMULTIMAL MAISTEAN CALIFORNICE: 0 AESTONAL STRENGTH FOURLS FAIL-SAFE STANDING LETTERS FILES FAIL-SAFE STANDING LETTERS FILES FAIL-SAFE I DO STANDING LETTERS FILES FAIL-SAFE STANDING STRENGTH FOURLS FAIL-SAFE I DO STANDING STRENGTH FOURLS FAIL-SAFE I DO STANDING STRENGTH FOURLS FAIL-SAFE	SHIP ST	ζ;	25.0	3482	23438	
of Special Propertions from Clear 78 OF Shortning Projections or appropriate visibilities or appropriate filtows Stanting filtows Stanting filtows Stanting filtows Stanting filtows Stanting filtows Fil	£046£S1	Ç	3	ļ.		
OF STWICTINGS TO SERVICES OF AESTONAL STRENGTH FOURLS FAIL-SAFE STRINGS FILL-SAFE ST	۳.	At 1 SPECTIONS from		,		
STATIONAL FILMS STATEMENT FOURLS FAIL-SAFE STATIONAL FILMS FILMS FILMS FILMS FILMS FAIL-SAFE STATIONAL FILMS FILM	÷	THAME WONIFICATIONS				
Stanfingt Filters Fourts Fail-Safe Ajutabet Sirength Fourts Fail-Safe Ajutabet ND. Fit, House		ANALY OF REPRESENTATIONS AND				
11. 11.1. 31.5 31.5 31.5 41.5 41.5 41.5 41.5 41.5 41.5 41.5 4	Ĺ			JANUAL STOUAL	STRENGTH FOURLS FAIL-	SAFE STRENGT
	, <u>.</u>	Spring and the	512, 3,6,	AITCORFE		
			***)))) 6 4		

TABLE 16. DEMONSTRATION RESULTS FOR WING - STRINGER, CENTER

•	Defects Per Million SAIFE	Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	5.30 10.30 11.27 2.53 2.33	0.15 0.22 0.64 1.05 1.49
Total	31.73	3.55
Corrosion Detected	, •	
Preflight Service Phase Overhaul Special	0.40 0.73 0.30 0.30 0.50	0.00 0.15 0.00 0.04 0.33
Total	2.23	0.53
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.17 0.13	0.28 0.00 0.00

TABLE 16 - Continued

AIRCHAFI TYPES HYBRID

60000 HOURS
LIRCRAFT SERVICE LIFE:
200
IN FLEFT:
NUPHER OF AIRCRAFT IN FLEFT:
NUPRER

SUMMARY UF STRUCTURAL ELEMENT: MNG-STR-LSC

NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

PRODUCTION DEFECTS 3 6666	SPECIAL
PRODUCT	D-LEVEL 55 18 1.57
SERVICE DAMAGE 10160 43619 22396	NIJMUER AND LENGTH (IF CRACKS DETECTED AT EACH LEVEL OF C-LEVEL 159 189 243 2543 1.80
CORROSION 39 2542 55144 33248	HSTH (IF CRACKS DETEI B-LFVEL
11/8 CKAEK 11/8 11/8 59081 13/51	NUMBER AND LE A-LFVEL 159 .56 2.43
()CCURRFNCES MIN(MRS) MAK(MRS) AVG(HRS)	OCCURRENCES Min(In) Max(Ii) Avg(In)

THIMBER AND AREA OF CHARDSIN DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

	4-LEVEL	Halevel	C-LEVEL	D-LEVEL	SPECIAL
UCCURRE ₄ C2S	2:	•	N	1	0
FIN(SO.IV)	1.51	1.01	1.00	F-1 - 5	0111
MAX (SO. 14)	2.58	1.47	147 101 101 101	14.03	35.99
AVG(SQ.IN)	A	1.26	1.06	7,33	10.20
INSPECTION THERMALS(HRS)	LS(HRS)				
INI 11AL	23	902	1000	12000	
SHORTEST	75	200	204	1342	
LONGEST	25	200	2785	23458	
NUMBER OF SPECIAL NUMBER OF STRUCTUR	NUMBER OF SPECIAL INSPECTIONS CONDUCTED: 167 NUMBER OF STRUCTURAL MODIFICATIONS: F NUMBER OF ATRORAFT WODIFIED TO SERVICE: 47	167 473			

S.T.

E STRENGTH	STA. NO.	******
TH EQUALS FAIL-SAF	AIRCRAFT NO. FLT. HOURS STA. NO.	*******
RESIDUAL STRENGI	AIRCHAFT NO.	******
	SIA, NO.	*********
FRICTIONAL FAILUNES	FLT, HILLAS	000000000000000000000000000000000000000

- Continued TABLE 16

AIRCHAFT TYPE: HYBRID

NUMBER OF	AINCRAFT IN FLEET:	500	AINCHAFT SERVICE LIFE:		60000 MOURS
	Sumus	KRY OF STRUCTURAL	SUMMARY OF STRUCTURAL ELEMENT: MNG-STR-USC		
	AUMBER AU	40 TIME TO INITIA	AUMBER AUD TIME TO INITIATION OF AINCRAFT DEFECTS	ECTS	
	FIRST CRACK	CORROSION	SERVICE DAMAGE	PRODUCT	PRODUCTION DEFECTS
			***********	•••••	
	263	39	6		
	50€	4223	0	•	****
	59737	16115	0	•	••••
	43918	62192	e	•	
	NUMBER AND LENGT	TH EIF CHACKS DETE	NYARFR AND LENGTH DF CRACKS DETECTFD AT EACH LEVEL OF INSPECTION	INSPECTION	
	A-LE 1EL	ROLEVEL	C-LEVEL	D-LEVEL	SPECIAL
	1 1 1 1 1 1 1		•••••	•••••	
	0	123	56	21	
	•0	.50	62.	.38	09.
	•	7.12	4,58	5.63	3,59
	• 0	1,64	1.25	1.98	1.84

	a,	:
BUMBER AND AREA OF CORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	D=LEVEL	•••••
بر 0	å	i
LEVE		
EACH		
14	YEL	
ECTEO	C-LEVEL	
DET		
EC 1 S		
DEF	ب	•
¥0180	3-1 EVEL	
CURR	ě	i
Ž,		
AREA		
₽ ₹0	A-LEVFL	
BER	A-1.E	
ž		

	A-LEVFL	Bef EVEL	C-LEVEL	D-LEVEL	SPECIAL
OCCURRENCES	3	4.	7	*	15 5
MIN(SQ.IN)	0.	18.	1,33	2,50	5.25
MAX(SQ.IH)	O	3,63	3,51	40.07	45,69
AVG(50, IN)	• 0	2.26	2,04	13,68	21.66
INSPECTION IN	INSPECTION INTERVALS (HRS)				
INITIAL	25	200	1000	12000	
SHORTEST	25	200	204	1256	
LONGEST	25	006	3482	23438	
		6460			

Ç NUMBER OF SPECTAL INSPECTIONS CONDUCTED: 102 NUMBER OF STRUCTURAL MODIFICATIONS: 0 NUMBER OF AIRCRAFT MODIFIED IN SERVICE: (RESIDUAL STRENGTH EQUALS FAIL-SAFE STRENGTH AIRCRAFT NO. FLT. HGURS STA. NO. STA. NO. STRUCTURAL FAILURES FLT. MOURS AIRCRAFT WIL.

TABLE 16 - Continued

AIRCRAFT TYPE: HYBRID

NUMBER OF AIRCRAFT IN FLEETS 500

AIRCHAFT SERVICE LIFE: 60000 HOURS

STRUCTURAL ELEMENT: WNG-STH-LSC-0294

PREDICTED AVERAGE FAILGUE LIFE: 240120 HOURS

ACTUAL AVERAGE FATIGUE LIFE: 215924 HOURS

NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

	FIRST CHACK	CORROSION	SERVICE DAMAGE	PRODUCTION DEFECTS
·			**********	
OCCURRENCES	8	0	0	0
MIN(HRS)	30735	0	0	****
MAX (HRS)	52644	٥	0	
AVG (HRS)	35877	0	0	

NUMBER AND LENGTH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION

	·A-LEVEL	BULEVEL	C-LEVEL	D-LEVEL	SPECIAL
	****	******	******		~~~~~
OCCURRENCE S	0	4	1	0	1
MIN(IN)	0.	.47	.53	0.	.98
MAX (IN)	0.	.55	,93	0.	, 48
AVG(IN)	0.	•5⊋	.53	0.	.48

NUMBER AND AREA OF CORRUSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

•	A-LEVEL	B-LEVEL	C-LEVEL	D-LEVEL	SPECIAL

OCCURNENCES	n	0	0	Q	0
MIN(SQ.IN)	0.	٥,	0.	0.	0.
MAX(SQ.IN)	α,	0.	٥.	٥.	٥.
AVG(50,1N)	U •	0.	0.	٥.	0.
INSPECTION INTER	VALS (HHS)				
INITIAL	25	500	1000	12000	
	25	500	1 250	15000	
3	25	200	1563	18750	
ű.	25	500	1953	23438	
5	25	200	684	8203	
6	25	500	854	10254	
7	ي ب	200	1000	15000	
A	25	500	1250	15000	
Q	25	200	1563	16750	

NUMBER OF SPECIAL INSPECTIONS CONDUCTED: 1
NUMBER OF STRUCTURAL MODIFICATIONS: 1
FINAL ACTUAL AVERAGE MODIFIED FATIGUE LIFE: 159442 MOURS
NUMBER OF AIRCRAFT MODIFIED IN SERVICE: 473

STRUCTURAL FAILURES
AIRCRAFT NO. FLT, HOURS

HESIDUAL STRENGTH EQUALS FAIL-SAFE STRENGTH AIRCHAFT NO. FLT. HOURS

TABLE 16 - Concluded

ATRCRAFT TYPE: HYBRID

NUMBER	()F	AIHCHAFT	1 N	PLEETI	500

AIRCHAFT SERVICE LIFET 60000 HOURS

STRUCTURAL ELEMENT: MNG-STR-LSC-0669

PREDICTED AVERAGE FATIGUE LIFE: 165600 HOURS

ACTUAL AVERAGE FATIGUE LIFE: 110269 HOURS

NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

	FIRST CHACK	CORROSION	SERVICE DAMAGE	PRODUCTION DEFECTS
OCCURRENCES	84	1	0	0 .
MIN(HRS)	13319	13451	0	
MAX (HRS)	59964	13451	0	****
AVG (HRS)	44547	13451	0	

. MIMBER AND LENGTH OF CHACKS DETECTED AT EACH LEVEL OF INSPECTION

	A-LEVEL	B-LE VEL	C-LEVEL	D-LEVEL	SPECIAL
		***	****		****
OCCURHENCES	5	7	17	5	7
MIN(IN)	.57	, 49	. 34	.41	.13
MÁX (IN)	,70	. 65	.69	.49	1.00
AVG(IN)	, 6 3	,56	.51	.45	.57

NUMBER AND AREA OF CORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

1	A-LEVEL	R-LFVEL	C-LEVEL	D-LEVEL	SPECIAL
OCCURRENCES	0	t	0	0	0
MIN(8Q.IN)	0,	1.12	0.	0.	٥,
MAX(SO,IN)	۸ 🕻	1.12	0.	0.	٥.
AVG(SQ. LN)	0,	1.12	٥.	0.	0.
INSPECTION INTER	VALS(HRS)				
INITIAL	25	500	1000	12000	
2	25	500	1250	13000	
3	25	500	1563	18750	
4	25	500	1953	25438	
5	25	500	684	8507	
6	25	500	854	19254	
7.	25	500	1068	12017	
A	25	500	374	4466	
9	ž5	200	467	5608	
10	25	200	584	7010	

NUMBER OF SPECIAL INSPECTIONS CONDUCTED: 2
NUMBER OF STRUCTURAL MODIFICATIONS: 1
FINAL ACTUAL AVERAGE MODIFIED FATIGUE LIFE: 106827 MOURS
NUMBER OF ATHORAFT MODIFIED IN SERVICE: 0

STRUCTURAL FAILURES AIRCRAFT NO. FLY. HOURS RESIDUAL STRENGTH EQUALS FAIL-SAFE STRENGTH AIRCRAFT NO. FLT. HOURS

TABLE 17. DEMONSTRATION RESULTS FOR WING - STRINGER, FORWARD

·	Defects Per Million SATFE	Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	4.50 8.37 7.40 0.93 1.43	0.21 0.71 1.04 1.69 1.04
Total	22.63	4.69
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.33 0.57 0.27 0.23 0.67	0.00 0.31 0.00 0.10 0.00
Total	2.07	0.41
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.07 0.03	0.07 0.00 0.02

TABLE 17 - Continued

AINCHAFT TYPE: HYBRID

Aodo Muurs		PHOBUCTION DEFECTS				0 0 0 0		SPECIAL		30	.18	04.4	.61			01	1.50	10 E - 11 C	15.92						STHENGTH FOURLS FAIL-SAFE STRFNGTH IN. FLI, HINRS STA, NO.
SERVICE LIFE:	LSF PFFCTS						. OF INSPECTION	G-LFVEL		Ξ.	2.	2.51	œ.	FVFL OF INSPEC		S	3.51	51.51	15.69		12000	1961	73438		AL STARNGTH EQU 1 40. FL
AIRCHAFT	SUMMARY OF STRUCTURAL FLEMENT: MNG-STR-LSF FF AND TIME TO INITIATION OF AIRCHAFT OFFF	SERVICE DAMAGE		8	c	c	TECTED AT FACH LFVEL	L-LEVFL		173	8 .	OE .	55.	S OFTECTED AT FACH L			25-1	1.5/	. 5.7		1000	70₹	27.45		RESIDAR ST AIRCRAFT 40.
EFI: Sno	SHEWARY OF STRUCTURAL FLEMENT, MMG-STR-1.55 GIMMER AND TIME TO INITIATION OF AIRCHAFT OFFETS	S, HKR(15] UB	36	8620	19115	56124	AN) LENGTH (IF CRECKS DETECTED AT FACH LEVEL OF INSPECTION	1384 I-W	* * * * * * * * * * * * * * * * * * * *	151	54.	50.0	۶4.	AND AMEN HE COMPOSITIN DEFECTS OFTECTED AT FACH LEVEL OF INSPECTION	H-LT V7.	1	10 m	>	- - -		0 0 0 0 0 0 0 0 0 0	250	000	f 1 F h ; o \$	STA P.E.
A OF A SHIPAFE IN FLEFT:	## ###################################		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5.23	Seak	25 5 B B	ाष्ट्रम अनुसन्धाः	A-I FVFL	1 + 1 + 1 + 1	1 5%	F~ 1	25.2	3	MININER AND AREA	A-LEVFL	1.1	1.5.1	<u> </u>	14.	VAI S(HHS)		<u>ح</u> ر	\$	SPECIAL IMSPECTIONS CONDUCTED: STRUCTORAL MODIFICATIONS: 0 ALREGART MODIFIED IMSEMVICE:	STRUCTURAL FATLURES FIT. HUNKS
FIJWRER OF			OCCURRENCES	MIN(HRS)	MAK(HRS)	AVG(MKS)				OCCURRENCES	MIN(IR)	MAX (IN)	AvG(In)			OCCURRETUCES	MIM(Su.In)	****	AVG(SQ.I%)	JNSPECTION THERVALS (HRS)	INITIAL	SHORTEST	LUNGESI	NUMBER OF SPECIA NUMBER OF STRUCT NUMBER OF ALVERA	SIR AIRCHAFI MI.

TABLE 17 - Concluded

AIRCRAFT TYPE: MYBRID

AIRCRAFT SERVICE LIFE: 60000 HOURS NUMBER OF AIRCRAFT IN FLEET: 500

SUMMARY OF STRUCTURAL FLEMENT: ANG-STR-USF

NUMBER AND TIME TO INITIATION OF AINCRAFT DEFECTS

GCCURRENCES Min(4RS) Max(4RS) Avg(4RS)	**********			11010	
K (HRS) 6 (HRS)	192	3.6	5 25 5		0
G(HRS)	59900	59434	49529	•	i i i i i i i i i i i i i i i i i i i
	45529	34054	25961		
	NUMBER AND (LENGTH OF CHACKS DET	NUMBER AND LENGTH OF CHACKS DETECTED AT EACH LEVEL OF	OF INSPECTION	
	A-LEVEL	A-LEVEL	C-LEVEL	D-LEVEL	SPECIAL
	*****		******		
OCCURRENCES	כ	76	60		P
(NI)NIM	•	. 47	.35	.50	. ~
MAX(IN)	• 0	4.F3	60.0	3.87	1
AVG(IN)	٠,	1.54	09.1	1.90	1,69
	A-LEVEL	BOLEVEL	C-LEVEL	D-LEVEL	SPECIAL
DCCURRENCES	0	10	7	~	10
MIR(SO.IN)	• 0	1.16	1.14	13.34	4.37
MAK(SO.IK)	• 0	3.72	90.0	19.55	61.68
AVG(80, IN)	.	2,32	2.24	16.61	29.86
INSPECTION INTERVALS(MRS INITIAL.	~	002	1900	12000	
SHURTEST	52	200	400	601	
LONGEST	52	200	2228	23438	
0. 0.F	SPECIAL INSPECTIONS CONDUCTED: STRUCTURAL WOOIFICATIONS: 0	C7E0: 92			
NUMBER OF AIRCRAF	AIRCRAFT MODIFIED IN SERVICE:	ICE: 6			
STRUM AIRCRAFT NO.	STRUCTUMAL FAILURES FLT, MONS	S14, 50,	MESIDUAL ST AIRCRAFT MO.	RENGTH EQUALS	FAIL-SAFE STRENGTH HOURS STA. ND.

TABLE 18. DEMONSTRATION RESULTS FOR WING CENTER SECTION - STRINGER, AFT

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	0.00 0.09 0.37 0.07	0.00 0.00 0.00 0.06 0.06
Total	0.53	0.12
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.00 0.57 2.10 0.03 0.00	0.00 0.03 0.03 0.00 0.08
Total	2.70	0.14
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.00 0.00	0.00 0.00 0.00

iasLE 18 - Continued

AINCPART TYPE: HYBRID

60000 HOURS		PRODUCTION DEFECTS		0	•	• • • • • • • • • • • • • • • • • • • •	***		SPECIAL		0	•	••	• 0		MOIL	SPECIAL		0	•0	• @	• پ									FEGULS FAIL-SAFE STRENGTH	FL: KOURS STA NO.		
VICE LIFE:	v							INSPECTION	1373		~	7.0	64	.01		SE OF INSPECTION	1979 1-0		-	5.35	5,35	5,35			00021	12599	16262				STRENGTH EG			
AINCRAFT SERVICE LIFE:	SUMMERY OF STRUCTURAL ELEMENT: ASC-STR-LSA			c	c	· e	· •	DETECTED AT EACH LEVEL OF				2	000	(A)	•	DETECTED AT EACH LEVEL		1 1 1 1 1 1 1	4	. d	26.95	6.91			5561	1566	2002				ed in the control of	AIMCGAFT N	• • • • • • • • • • • • • • • • • • •	
ET: 500	THATES STRUCTURAL	THE SCHOOL OF BEING SAFE YARREST.	*DTODKKE)	62	6733	3955	30816	NUMBER AND LENGTH OF CRACKS DETE	1	Helf VE		יי איי איי איי איי איי איי איי איי איי	70.) # • 4) }	DE FORMOSTON DEFECTS		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			1 di	2,32			502	200	505	0 1901		1CE: 0		STA. Mr.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
OF APPERAFT IN FLEET:	v j		FIRST CHACK	3 7 7		15564	54788	NUMBER AND L		A-LEVEL	***	.	• •	• •	•	PO END CHE OFFERING		A-LEVEL		ت ,	ب •	• (•	(9) (1) (1) (1) (1) (1) (1) (1) (1)	٠,	52	is Ca		ATTENDED TO STATE AND PROPERTY OF THE PARTY	AIRCRAFT WOOTFIED IN SERVICE		STRUCTURED FAILURES		
es∄ér#f0≥					UCCURRENCES	#IM(HRS)	MAX(HRS) Avg(HRS)					OCCURRENCES	*INCIN)	WAX(IV)	AVG(IK)				1	SCCORPEACES	(21 do) 21 3	(21 CO) C) 4	N. T 20) 5 . 4	SCHOOL MOLLUGOVAL	141114	1 1 1 1 1 1		į		<u>.</u>		STS		

TABLE 18 - Concluded

AIRCHAFI TYPE1 HYBRID

		PACOUCTION DEFECTS	•••••••••••••••••••••••••••••••	* * * * * * * * * * * * * * * * * * * *	• • • •	• • •	SPECIAL		0	•0	0 *	•	SPECIAL		c	. (FOURLS FAIL-SAFE STRENGTH FIT HOURS
USA	EFECTS						OF INSPECTION DOLEVEL	****	•	.	•	•	D-LEVEL			• •			12000	12256	23438		RE 16 TH
STRUCTURAL ELEMENT: #SC-STR-USA	TION OF AIRCRAFT DI	<u> </u>	0	c	6	6	CTED AT EACH LEVEL		•	gang gerd g gang	2.66	1,46	CALEVEL	32	7 6	24.74	5,42		3001	1600	1953		RESIDUAL ST
SUMMARY OF STRUCTURAL	NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS	COREDSION	T a	4678	58849	31993	HUMBER END LENGTH OF CRACKS DETECTED AT EACH LEVEL LEVEL R-LEVEL C-LEVFL		7	28.	2,09	1.40	BOLEVEL	0	- 00		3.45		00≥	200	992	e	(1
Š	RUWBE		0	28902	53211	#506£	hywgru 240 (f A-LEVEL		c	•0	•0	•0	ROLEVEL) c		• •	· •	/AE.5(MRS)		52	\$ 2.	SPECIAL INSPECTIONS CONDUCTED STRUCTURAL WODIFICATIONS: 0 AIRCRAFT WODIFIED IN SERVICE:	STRUCTURAL FAILURES
			OCCURSFACES	MIN(HRS)	MAK(HRS)	AVG (HRS)			DCCURRENCES	MIN(IN)	MAX(I%)	AVG(IN)			MIN(SO [N]	(%) (%) X##	AVS(SQ.IN)	INSPECTION INTERVALS(MRS)	INITIAL	SHOPTEST	LONGEST	NUMBER OF STRUCTS	STA:

TABLE 19. DEMONSTRATION RESULTS FOR WING CENTER SECTION - STRINGER, CENTER

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	0.00 0.43 0.83 0.07 0.00	0.04 0.04 0.04 0.40 0.18
Total	1.33	0.70
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.00 0.70 1.57 0.07	0.08 0.30 0.00 0.93 0.46
Tota1	2.34	1.77
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.00 0.00	0.17 0.00 0.04

- Continued 65 64 111 111 111 111

SCHAFF TYPER HYBRID

HDURS			DEFECTS			SPECIAL		::			SPECIAL	٥	•	•		
VICE LIFE: 60000 HDURS			PRODUCTION		FINSPECTION	D-LEV	Cı ≥0	1.35		EL OF INSPECTION	Delevel	 €	3 20 00	1.04	12000	12000 23838
LINCRAFT SERVICE LIFE:	STRUCTURAL ELEMENT: MSC-STR-LSC	NUMBER AND TIME TO INITIATION OF AIRCHAFT DEFECTS	SERVICE DAMAGE	per o	NUMBER AND LENGTH OF CHACKS DETECTED AT EACH LEVEL OF	C-LEVEL	25	> 40 0 10 0) 1	CORPOSION DEFECTS DELECTED AT EACH LEVEL OF INSPECTION	C-LEVEL	52	1.06	4.25	1000	1953
	SUMMARY OF STRUCTURAL	AND TIME TO INITIAL	COPHOSION	41 3762 5642a 30611	NGTH OF CRACKS BETEG	R-LEVEL		N 0 0		F CORROSION DEFECTS	S-LFVEL	3	1.25	2.39	200	002
OF AIRCRAFT FLY		#3##0#	FIRST CRACK	66 13336 59879 45337	al que asemb	A-LEVEL	0		• ¢	NUMBER AND AREA OF	A-LEVEL	1 6		• •	(HRS)	25 25 25
N SHEMEN				OCCURRENCES MIN(HRS) MAX(HRS) AVG(HRS)			Satisfactions	ELC();;;;	AVG(IN)			•	OCCURRENCES MIN (SO. IN)	MAX(SO.IN) AVG(SO.IN)	INSPECTION INTERVALS	INITIAL SHORTEST LONGEST

STA. NO.

RESIDUAL STRENGTH EQUALS FAIL-SAFE STRENGTH AIRCPAFT NO. FLT. HOURS STA. NO

STA. NO.

STRUCTURAL FAILURES FLI, HOURS

AIRCRAFT NO.

¢. ټ

NUMBER OF SPECIAL INSPECTIONS CONCUCTED: NUMBER OF STRUCTURAL MODIFICATIONS: 1 NUMBER OF AIMCRAFT MODIFIED IN SERVICE:

TABLE 19 - Concluded

AIRCHAFT TYPES HYBRID

		PRODUCTION DEFECTS	•	&			SPECIAL	0	•0	•0	• 0	2	SPECTAL		ο,	• «	• 0	•								GUALS FAIL-SAFE STRENGTH FLT. HOURS STA. NO.
36	FECTS	PRODUC				OF INSPECTION	D-LEVEL	0	0	•	•	VEL OF INSPECTION	D-LEVEL			2,47) · ·	/ h = 2		12000	12000	23 8 39				RENGTH E
STRUCTURAL ELEMENT: MSC-STR-1JSC	ION OF AIRCHAFT DEF	SERVICE DAMAGE		¢ (. .	TED AT EACH LEVEL (COLEVEL		000	20-1	1.50	COMPOSION DEFECTS DETECTED AT EACH LEVEL	C-LEVEL		25	1.80	11.71	6.26		1000	1500	1953				RESIDUAL STA
SUMMARY OF STRUCTURAL	NUMBER AND TIME TO INITIATION OF AIRCHAFT DEFECTS	NOISONNOI	30	2343	54877 28265	NUMBER AND SENETH OF FRACKS DETECTED AT EACH LEVEL OF	B-LEVEL	***	u (ଧ ସ • '	. F.7	CORROSION DEFECTS	ROLEVEL	*****	1	1,18	3.93	5.64		200	200	200	reng o		0	SIA. NO.
ins	NUMBER	21		Ŋ	55109 45274		A-LEVEL) () ! !	-	• •	• •	MUMBER AND AREA DE	APLEVEL	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	0	• 0	•0	φ.	ALS(HRS)	25	\$2	\$2	SPECIAL TRSPECTIONS CONDUCTEDS	STRUCTURAL WODIFICATIONS:	AIRCHAFT MODIFIED IN SERVICE:	STRUCTURAL FAILURES
			OCCURRENCES	RIR(RES)	MAK (HRS)			•	OCCURRENCES	(NI)NIW	MAX([M]				OCCURRENCES	#IN(SQ. [N)	MAX(SQ.IN)	AVG(SQ.[h)	INSPECTION INTERVALS (HRS.)	INITIAL	SHORTEST	LONGEST	MIDES TO SERVE	6	NUMBER OF AIRCRAF	STR.

TABLE 20. DEMONSTRATION RESULTS FOR WING CENTER SECTION - STRINGER, FORWARD

	Defects Per Millio	n Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	0.00 0.17 0.37 0.00 0.00	0.00 0.25 0.45 0.14 2.76
Total	0.54	3.60
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.00 0.50 1.53 0.00 0.00	0.00 0.03 0.00 0.05 0.03
Total	2.03	0.11
Fail-Safe Damage Failures Sorvice Damage Production Defects	0.00 0.00 0.00 0.00	0.11 0.00 0.00

TABLE 20 - Continued

AIRCRAFT TYPE: HYBRID

		STREET OF BASE CAR OF			
		TITE OF THE PRICE	ITIUN OF AIRCRAFT DEFECTS	CTS	
	FIRST CRACK	CORPOSION	SERVICE DAMAGE	PRODUCT	PRODUCTION DEFECTS
SECTURRENCES		4.			
エンボーエラの つ	1869	1497	, c	Ì	> !
COURT HAN	10000	24178) C		
AVG (HRS)	48599	30610	, G	•	
	NUMBER AND L	AND LENGTH UF CRACKS DET	DETECTED AT EACH LEVEL OF	INSPECTION	
	A-LEVEL	B-LFVEL	C-LEVEL	D-LEVEL	SPECIAL
	*****	100000	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
OCCURRENCES	æ	49	•	6	0
MIN(IK)	•	.55	.33	•	• 0
(MI) XV	• 0	1.24	1.27	•	•0
AVG(IN)	•	e.	. 74	•	•0
	APLEVEL	8-LEVEL	C-LEVEL	D-LEVEL	SPECIAL
OCCURRENCES		•	**	•	C
MIN(SO. 14)		9 60	1.07		
MAX(SQ.IN)	. 0	200	23.26		
AVC(SQ.IN)	• °	1.91	5,93	•0	• 0
CSCHISTANGER TATE STANDARD	FRUALS(HRS)				
INITIAL	52	200	1000	12030	
SHOPTEST	52	260	1000	12000	
LONGEST	52	200	1953	23438	
	SPECIAL INSPECTIONS CONDUCTED:	51 E01 0			
NUMBER OF STRUCK	SIMUCIUMAL MODIFICATIONS: 0 AIRCRAFT MODIFIED IN SERVICE:	0			
S. Car Frague	STRUCTURAL FAILURES	<u>.</u>	RESIDUAL ST	RENGTH FOURLS	FAIL-SAFE STRENGTH
・つき こしちょうよ					

TABLE 20 - Concluded

语言的是是是一个人的是是是一个人的,这种人的人,也不是一个人,也是一种人的人,也是一种人的人,也是一种人的人的人,也是一种人,也是一种人

SINCREFF TYPE: HYENIO

60000 MDURS			PRODUCTION DEFECTS		• (4.8.9.9			SPECIAL	****	0	• 0	•0	•	10%	SPECIAL	c	• 0	•0	• 0					QUALS FAIL-SAFE STRENGTH FLT, HOURS STA, NO.
SERVICE LIFEE	i.	FCTS	PROD	•				: INSPECTION	D-LEVEL	•	0	•	0.	•	E UF INSPECT	D-LEVEL	6	0.		•		12000	12000	05 55 55 55 55 55 55 55 55 55 55 55 55 5	RENGTH E
AIRCRAFT SE	STRUCTURAL ELEMENT: MSC-STR-USF	NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS	CE 1)		. 0	· c	•	NUMBFR AND LENGTH OF CRACKS DETFCTED AT EACH LFVEL OF INSPECTION	C-LEVEL		.n		2.15	1.67	DETECTED AT EACH LEVEL UF INSPECTION	C-LEVEL	82	1,03	16.47	₹0*9		1000	1000	562	RESIDJAL ST AIRCRAFT NO.
ET: 500	SUMMARY OF STRUCTURAL	R AND TIME TO INITIA	CORROSION		5641	59116	33027	LNGTH OF CRACKS DETF	Bolevel	1 1 0 0 1 0 0	***	1.72	1.72	1.72	UF CORROSION DEFECTS	B-LFVEL	4	1.03	4.21	2.18		500	000	: 0 :	S14, MG.
WIMBER OF BIRCRAFT IN FLEET:	•	BHIME	FIRST CRACK		17854	54830	42009	1 ONE BIBWAN	4-LEVEL		ଚ	• 0	•	•0	NUMBER AND APEA	A-LEVEL	0	•0	•	•0		25	10 C	SPECIAL INSPECTIONS CONDUCTED: STRUCTURAL WIDIFICATIONS: 0 AIRCRAFT WIDIFIED IN SERVICE:	STRUCTURAL FAILURES FLI. HIURS
BWON				DCCURRENCES	MIN(HAS)	MAX (HRS)	AVG (HRS)			,	CCCURRENCES	(NI)NIM	MAX(IN)	AVG(IN)			OCCURRENCES	(NI CS) NIM	MAX(SO, IN)	4VG(SQ, IN)	INSPECTION INTERVALSCHRS)	INITIAL	SHURTEST	0 F 0F	AIRCRAFT NO.

TABLE 21. DEMONSTRATION RESULTS FOR WING CENTER SECTION - SPANWISE BEAM, AFT

	Defects Per Millio SAIFE	n Flight Hours MRR/SDR
Cracks Detected		
Preflight Service Phase Overhaul Special	0.00 0.20 0.10 0.00 0.03	0.04 0.12 0.04 0.28 0.12
Total	0.33	0.60
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.00 0.03 0.00 0.13 0.07	0.00 0.04 0.00 0.04 0.09
Total	0.23	0.17
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.13 0.00	0.00 0.00 0.00

TABLE 21 - Concluded

AINCHAFI TYPE: HYBRID

60000 HOURS			PRODUCTION DEFECTS	0				SPECIAL	• • • • • • • • • • • • • • • • • • • •	1 36	1.36	1.36	T jû b	SPECIAL	~	3.80	€ 4 • 6 • 6 • 6 • 6	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9					EQUALS FAIL-SAFE STRENGTH FLT, HOURS STA, NO.
SERVICE LIFE:		C13	Crad I				INSPECTION	D-LEVEL		•	0	. 0	L GF ISPECTION	D-LEVEL	4	1.99	17,32	`. `.	12000	1570	23238		RENGTR
AIRCRAFT SER	SUMMARY UF STRUCTURAL ELEMENT: MSC-SMR-AFT	TIME TO INITIATION OF AIRCHAFT DEFECTS	SERVICE DAMAGE	7	22075	29714	AND LENGTH (IF CRACKS DETECTED AT EACH LEVEL OF INSPECTION	C-LEVEL	5 F	95.	2,43	1.23	NUMBER 250 AFER OF COPROSION DEFECTS DETECTED AT EACH LEVEL	C-LEYEL	c	• 0	• (• •	000	602	2228		RESIDUAL SIR AIRCRAFI NO.
£7: 500	SUMMARY LIF STRUCTURAL	NUMBER AND TIME TO INITIA	CORROSION		4834	35198	ERGTH OF CRACKS DETE	F-LEVEL)	8 S.	2 2	1,36	JF CUPROSION DEFECTS	R-LEVEL		1.56	1.56	1 - 50	090	. D	502	1ED: A 0 1CF: 0	514. F.O.
NUMBER OF AIRCPAFT IN FLEETS	v	s Brenza	FIRST CHACK	1 7 1	12738	24050 64185	NUMBER AND L		6 (8 6 8 6	9	. 0	0	NUWRER END BEER C	A-LEVEL	0	• 0	3 0	• 0	_	<u> </u>	\$2	SPECIAL INSPECTIONS CONDUCTEDS STRUCTURAL MODIFICATIONS: 0 AIRCRAFT WODIFIED IN SERVICE:	STRUCTURAL FAILURES FLI. MOURS
restable to the second				OCCURRENCES	MIN(HRS)	AVG(HRS)				MIN(IN)	HAX(IN)	AVG(IN)			OCCURRENCES	MIN(SO,IN)	MAX (SQ. IV)	AVG(SD, IV)	INSPECTION INTERVALS (MRS	MATINE ST	LONGEST	NUMBER OF SPECI NUMBER OF STRUC NUMBER OF AIRCR	MIRCRAFT SIL

TABLE 22. DEMONSTRATION RESULTS FOR WING CENTER SECTION - SPANWISE BEAM, CENTER

	Defects Per Mi SAIFE	llion Flight Hours MRR/SDR
Cracks Detected		
Preflight Sorvice Phase Overhaul Special	0.00 0.10 0.03 0.00 0.00	0.00 0.02 0.02 0.19 0.00
Total	0.13	0.23
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.00 0.00 0.03 0.13 0.10	0.00 0.00 0.09 0.00 0.00
Total	0.26	0.09
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.03 0.00	0.00 0.00 0.00

TABLE 22 - Concluded

AIRCRAFT TYPE: HYBRID

60000 MOURS			PRODUCTION DEFECTS	0 1	1 8 8 9 9 9		SPECIAL	0 C	• 5	•0	•0	z	SPECIAL		m	8.07	26.63	10.64					FAIL-SAFF STRENGTH HOURS STA. NO.
SERVICE LIFF:	CEN	EFECTS			,	OF INSPECTION	D-LEVEL			. 0	•0	EVEL OF INSPECTION	D-LEVFL		Ð	, M. B.	45.A1	16.07	12000	4486	21012		RENGTH EUSALS FLT.
AIRERAFT	ELEMENT: ASC-SAH-	ITION OF AIRCRAFT O	SERVICE DAMAGE	30430	30450	CTED AT EACH LFVEL	C-LEVEL	-	. 20.	20.	70.	DETECTED AT EACH LEVEL	C-LEVEL		اسر، ا	5.79	2.79	2.19	1600	374	1953		RESIDUAL ST AIRCRAFT NO.
:1: 500	SUMMARY OF STRUCTURAL ELEMENT: ASC-SAB-CEN	NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS	CORROSION	12	59865 36369	NUMBEP AND LENGTH OF CPACKS DETECTED AT EACH LEVEL OF INSPECTION	Bolevfl	• ~ • •	i so	4.05	1.96	COPRUSION DEFECTS	H-I FVEL	110000	c	• 0	•	• 0	200	200	200	7.50; u 0 CE: 0	S14. NO.
OF AIRCRAFT IN FLEETS	રેલ્	Beath	FIRST CRACK	50430	59536 43255	NIMBEP AND LI		8 C		• 0	0.	NUMBER AND AREA OF	A-LEVEL	• • • • • • • • • • • • • • • • • • • •	c	• 0	• 0	• 0		25	\$ 2	SPECIAL INSPECTIONS CONDUCTED: STRUCTURAL MODIFICATIONS: 0 AIPCMAFT MODIFIED IN SERVICE:	STRUCTURAL FAILURES FLT, HOUKS
aO Basewilk				OCCURRENCES Min(HRS)	HAX (HRS) AVG (HRS)			SUNSCALLOR	MIN(IN)	MAX(IN)	AVG(IN)				OCCUPRENCES	WIN(SO.IN)	MAX(SO, IN)	AVG(SQ, [N]	INSPECTION INTERVALS(MRS)	SHORTEST	LONGEST	NUMBER OF SPECIAL NUMBER OF STRUCTO	SIRU AIRCPAFT NO.

TABLE 23. DEMONSTRATION RESULTS FOR WING CENTER SECTION - SPANWISE BEAM, FORWARD

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Crack. Detected		
Preflight Service Phase Overhaul Special	0.00 0.10 0.03 0.03	0.00 0.14 0.29 0.07 1.24
Total	0.23	1.74
Corrosion Detected		
Preflight Service Phase Overhaul Special	0.00 0.10 0.07 0.07 0.03	0.00 0.13 0.00 0.00
Total	0.27	0.13
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.03 0.00	0.09 0.09 0.00

TABLE 23 - Concluded

AIRCRAFT TYPE: HYBRID

AIRCRAFT SERVICE LIFE: 60000 HOURS 200 SCHAED OF AIRCRAFT IN PLEFT:

SUMMARY OF STRUCTURAL ELEMENT: ASC+SMB-FAD NUMBER AND TIME TO INITIATION OF AIRCHAFT DEFECTS

PRODUCTION DEFECTS 0	SPECIAL ************************************	SPECIAL ************************************		E-UALS FAIL-SAFE STRENGTH FLT. HOUPS STA. NO.
	INSPECTION D-LEVEL 1 3 3 62 62	L OF INSPECTION D-LEVEL 2 21.88 50.44 36.16	12000 1256 2343£	RENGTH
SERVICE DAMAGE 1 21613 21613	OFTECTED AT EACH LEVEL C-LEVEL 1 1 59 69 69	DETECTED AT FACH LEVEL C-LEVEL 3.81 4.85 4.33	9000 239 245	RESIDJAL SIRENGIH AIMCRAFT NG.
CGRROSION 11 11 16308 53993 36839	AND LENGTH OF CRACKS DETE H-LEVEL 3 1.60 2.71 2.20	COPPUSION DEFECTS P-LVFL 3 1.52 2.56 2.56	266 286 286 286 27E5: 5	STB, 7.f.
# 1 1 0 0 F	AUMBEN AND I	AUMTER AND AREA (IF A-LEVEL C C C C C C C C C C C C C C C C C C C	INTERVALS(~PS) 25 25 25 25 25 25 25 SPECIAL INSPECTIONS CONDUCTED: STRUCT:94L *30IFICATIONS; 6 AIRCRAFT *07IFIED IN SERVICE;	STRUCTURAL FAILURES FLT, HOURS
OCCURRENCES Winthes) Wan(MRS) Avg(MRS)	OCCURRENCES Win(In) Wex(In)	CCCPRENCES MIN(SQ.IN) MAN(SQ.IN) AVG(SQ.IN)	INSPECTION INTERVALS (HRS) INITIAL SHOPTEST LONGEST NUMBER OF SPECIAL INSPECT NUMBER OF STRUCT 1941 W3DIR	STDCREET AG.

TABLE 24. COMPARISON OF RESULTS IN DEMONSTRATION STAGES FOR DOOR FRAME

	Defects pe	r Million	Flight Ho	ours - SAIPE
	<u>1st</u>	2nd	<u>3rd</u>	Final
Cracks Detected				
Preflight Service Phase Overhaul Special	1.97 2.23 21.30 2.80 1.80	0.46 0.53 3.20 0.17 0.03	0.40 0.47 3.40 0.03 0.03	0.53 0.60 2.63 0.13 0.00
Tota1	30.10	4.39	4.33	3.89
Corrosion Detected				
Preflight Service Phase Overhaul Special	1.46 0.90 0.13		0.40 0.57 0.70 0.00	0.47 0.30 1.00 0.00 0.00
Total	2.95	1.70	1.67	1.77
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.43 0.00	0.00 0.00 0.27 0.00	0.00 0.00 0.43 0.00	0.00 0.00 0.27 0.00

TABLE 25. COMPARISON OF RESULTS IN DEMONSTRATION STAGES FOR LIFE CENTER SECTION - SPANWISE BEAM, AFT

	Defects per	Million	Flight	Hours - SAIFE
	<u>1st</u>	<u>2nd</u>	<u>3rd</u>	Final
Cracks Detected				
Preflight	0.00	0.00		0.00
Service	0.73	0.13		0.20
Phase	0.90	0.00		0.10
Overhau1	1.27	0.00		0.00
Special	0.93	0.00		0.03
-1	-		به	
Total	3.83	0.13	ab1	0.33
Corrosion Detected			Availabl	
Proflight	0.00	0.00	¥	0.00
Service	0.00	0.13	بيه	0.03
Phase	0.03	0.07	0	0.00
Overhaul	0.27	0.00		0.13
Special	0.13	0.03	ij	0.07
OF COLUM			Data	W I U /
Total	0.43	0.23		0,23
Fail-Safe Damage	0.07	0.00		0.00
Failures	0.00	0.00		0.00
Service Damage	0.20	0.03		0.13
Production Defects	0.03	0.00		0.00

TABLE 26. COMPARISON OF RESULTS IN DEMONSTRATION STAGES FOR WING CENTER SECTION - SPANWISE BEAM, CENTER

	Defects per	Million	Flight	Hours - SAIFE
•	<u>lst</u>	2nd	3rd	<u>Final</u>
Cracks Detected				
Preflight Service Phase Overhaul Special	0.00 0.67 1.03 1.63	0.00 0.03 0.03 0.07 0.00	v	0.00 0.10 0.03 0.00 0.00
Total	4.43	0.13		0.13
Corrosion Detected			Avai labl	
Preflight Service Phase Overhaul Special Total	0.00 0.03 0.07 0.27 0.23	0.00 0.10 0.00 0.13 0.10 0.33	Data Not A	$0.00 \\ 0.00 \\ 0.03 \\ 0.13 \\ 0.10 \\ \hline 0.26$
Fail-Safe Damage Failures Service Damage Production Defects	0.03 0.03 0.10	0.00 0.00 0.07		0.00 0.00 0.03 0.00

TABLE 27. COMPARISON OF RESULTS IN DEMONSTRATION STAGES FOR WING CENTER SECTION - SPANWISH BEAM, FORWARD

	Defects per	Million	Flight I	lours - SAIPH
	<u>lst</u>	2nd	<u>3rd</u>	Fina1
Cracks Detected				
Preflight Service Phase Overhaul Special	0.00 1.00 1.53 1.40 2.40	0.00 0.03 0.00 0.03		0.00 0.10 0.03 0.03 0.07
Total	6.33	0.09	.lable	0.23
Corrosion Detected.			Avai	
Preflight Service Phase Overhaul Special	0.00 0.03 0.03 0.13 0.33	0.00 0.07 0.03 0.07 0.00	Data Not A	0.00 0.10 0.07 0.07 0.03
Total	0.52	0.17		0,27
Fail-Safe Damage Failures Service Damage Production Defects	0.23 0.10 0.23 0.00	0.03 0.03 0.03 0.00		0.00 0.00 0.03 0.00

APPENDIX A AFS-510 DEMONSTRATION

APPENDIX A

The results of AFS-510 demonstration with the revised model are presented in this Appendix A to Volume V. The tables roughly correspond with the tables of Volume V. A sample of the demonstration case, using approximately 10% of the elements on the complete airplane, was also run using the sampling technique developed, and these results are also presented in Tables 1, 2A and 2B.

The ratio of total number of cracks detected in the simulation to the number of cracks reported in MRR's (Column (a) of table 1) did not change greatly (2.30 and 3.02 for demo and sample vs. 3.17 for original demo) from the original Tech. Inc. demonstration and for the reasons given in Volume V, is considered realistic.

The ratio of the total number of cracks occurring in the simulation, to cracks detected (column (b) table 1) has increased (2.74 and 2.51 for demo and sample vs. 1.88 for original demo) from the original Tech Inc. demonstration. This is attributed to the lower inspection reliability used in the revised demonstration. This lower inspection reliability is considered more realistic as it based on a rational analysis of actual MRR reports. The higher ratio is also some-what supported by an USAF study in which it was determined by a complete structural teardown and NDI inspection on two KC-135 full scale wing fatigue tests, that only one-fifth of the cracks present were found in the normal test inspection program.

Columns (c) and (d) of table 1 list the larger cracks experienced in the full demonstration and the sample. The sample results are based on the extrapolation method of predicting largest cracks in the complete fleet based on the distribution of the frequency and length of cracks in the sample. The agreement between the full demonstration and the sample is good, indicating that 70 to 90% of fail safe crack length would be equaled or exceeded 5 times in the life of the fleet and that cracks as large as 161% (full demo, 31 inches in side stringer) and 135% of fail-safe length (sample, 26 inches also in side stringer) would occur. These large cracks did not cause any failures in these particular simulation runs. The capability to predict the percent of fail-safe length equaled or exceeded by the 5 largest cracks was added to the sample.

Columns (e) and (f) of table 1 give the estimated failure rates based on two different estimation methods for both the full demonstration and sample. The method of column (e) merely divides the failure rates of the sample by the decimal percent of the sample. This method ignores the possibility that the larger exposure in a simulation of the complete airplane would result in longer cracks with a much higher risk of failure. The method of column (f) is based on extrapolation of the sample crack frequency, length and probability of failure to cover the complete airplane. This method is considered more realistic. The sample and full demonstration failure rate estimates are in reasonable agreement although, the sample failure rate estimates are generally lower. Great credence should not be placed on the absolute value of the estimated failure rates because the input and relationships in the simulation are only approximate and because of the statistical nature of the simulation, the results may vary considerably from run to run. However, it is of interest to note that the simulation, which is evaluating a typical wide-body design operating under typical inspection programs and practices, predicts failure rates (5.83 x 10 -10 for full demo, 2.84×10^{-10} for sample) which meet the widely accepted criteria of less than one failure in 10 9 airplane bours. As would be expected

for these failure rates, no failure occurred in a simulation covering 5×10^{-7} airplane flight hours. "Failure" is defined as the complete structure being no longer capable of supporting the flight or pressure loads, as applicable. Sample estimates of failure rates and the percent of fail-safe crack length equaled or exceeded by the 5 largest cracks will be used in the forthcoming parametric trend studies to gauge the effect on safety by varying design parameters, inspection programs and operating practices. Crack length was added as an indicator because failure rate estimates are quite volatile.

Table 2A simulation results show good agreement with MRR data in the percent of cracks detected at each inspection level. Approximately 67% of the cracks were detected in the simulation in the close or detailed inspection (overhaul and special) compared to 78% reported in the MRR's. Only 20 to 30% of the cracks were detected in area or cursory type inspections. Here again, there is good agreement between the full demonstration and sample, and the revised simulation is much closer to MRR experience than the initial simulation reported in Volume V.

Table 2B shows good correlation between the average length crack detected in the sample (1.718 inches) the full demonstration (1.515 inches) and the MRR's (1.567 inches) and improved correlation over the initial demonstration (.95 inches with unrealistic fuselage side frame results removed). This improved correlation supports the lower inspection reliability curves, based on MRR studies, and used in the revised program demonstration.

The summary of full demonstration results are given in tables 3 through 24 for each element type. Table 8 in Volume V was ammitted because fuselage bottom stringers were not included in the full demonstration as progressive circumferential failures were not considered probable because of the low stress and the primary compressive loading of this structure.

The fuselage side stringers and wing lower surface center stringers dominate the failure rate prediction for flight structure and the fuselage window frames dominate the failure rate for pressure structure in the particular simulation run made for the full demonstration. The complete three page short list computer printout is included in table 9 for the risk dominating fuschage side stringer element (station 1100). The first page lists the random number seeds needed to duplicate the run; aircraft number for aircraft which experience corrosion, production or service damage; the simulation time at which first crack is discovered; inspection, modification and repair costs and simulation time for each modification evaluation; and cracks found in internal inspection. The second page is the standard short list and the third page gives aircraft number of each element which cracks; aircraft flight hours when the crack was terminated by repair, modification, retirement or failure; crack length at termination; and probability of failure associated the crack in each element. From the short list and input for station 1100 it can be deduced that the dominating crack was initiated by service damage at 21447 flight hours on aircraft number 408, was external and grew without detection to 19.44 inches at 58255 flight hours and to 31.19 inches at retirement at 60,000 flight hours without experiencing a load in excess of residual strength. A and B level inspections were not considered effective in this area and non exploratory C and D inspections were being made at 3520 to 4399 and 23,730 to 29663 hour intervals during this period with the knowledge that one crack had been found in this area. The problem illustrated by this case does not lend itself to easy solution. The actual fatigue life was adequate and the frequency of costly

detailed inspections would have to be significantly increased to assure detection of fatigue cracks initiated by random service damage.

The short list computer printout is also included in Table 16 for the risk dominating wing lower surface center stringer elements (stations 0543 & 0807). Station 0543 element had a marginal fatigue life (i.e., 66752 hours vs. 120,000 hours) but as indicated by a fatigue test life of 9,999,999 hours, did not have a valid fatigue test and service repair and inspection costs did not justify a service modification; the D inspection interval was reduced as a result of service cracks but the dominate fatigue crack of 2.91 inches was never detected prior to retirement. This type of problem could be alleviated by a more complete or realistic fatigue test. Similar to fuselage stringer 1100, the dominate crack (4.23 inches) in station 0807 element was also initiated early by service damage and not detected prior to retirement under the long inspection intervals late in the program. However in this case the actual fatigue life was marginal but was not detected in a valid fatigue test and service cracks did not generate a service modification or an inspection interval reduction.

A short list computer printout is also included in table 4 for the risk dominating fuselage window frame element (station 0930). The short list and input data indicate that the initial element actual fatique life was marginal. This was detected in the fatigue test thus generating a production modification but no retrofit on early service aircraft. Due to an error in the program, the production modification was not fatigue tested and had a higher but still marginal fatigue life. Service cracks detected on early unmodified elements generated a double reduction in the external D inspection interval to 2481 hours but no increase in sampling as no cracks were ever found in the internal sampling inspections. Apparently two internal cracks initiated simulataneously on opposite corners on aircraft 489 and grew at twice the rate of a single exack to a total length of 6.8 inches before becoming external. These cracks were subsequently missed in several external non-exploratory D and C inspections (A and B inspections were not considered effective for this area) and grew to a total length 8.08 inches when terminated by retirement. This type of problem could be alleviated by fatigue testing of modifications, more thorough evaluation and investigation of cracks detected in service and more frequent internal sampling.

Conclusions

A comparison between the results of the full demonstration, sample simulations and past service experience indicates that the revised program and input are reasonably realistic and that the sampling technique is adequate for use in trend studies of model parameters. These studies could be used as an aid in evaluation design and inspection criteria and practices. Responsible interested parties may obtain computer card decks for the program, demonstration and sample inputs on loan for duplication from AFS-510, Aeronautical Center, Ecderal Aviation Administration, Oklahoma City, Oklahoma.

SUNMAPU OF SAIFE DEMONSTRATION RESCUES

	•				<u></u>			
				<u>.</u>	<pre>\$ of Fail-Safe Length Equaled</pre>	-Safe maled	ġ)	<u>-</u>
	SAIFE C	(a) SAIFE Cracks Detected/	First Cr	First Cracks Occurring/	or Exceeded by	led by	Fail-Safe Crack	Crack
1	ומז	Cracks	Cracks D	Detected	5 Longest Cracks Full — Sample	Sample	Pull — Sample	Sample
Element Type		ardinec	Tin,					
Door Prame	3.02	14.90	1.49	1.36	26.60	1	0 0	1 1
Window Frame	8.67	19.36	2.75	2,28	38.95	ŀ	Þ	
	ι. α	11 05	1.76	1.53	15.45	1	0	1
- Fain Frame, Forcom	20	6.22	2.17	1,93	15.28	i	0	I
- Main Frame, Stue - Main Frame, Top	1.74	8.18	3.77	2.13	14.64	1	0	1
Ø 6	7,	1 60	3, 10	2,73	41.00	l	7	٣
- Stringer, side - Stringer, Top	1.39	2.12	3.07	3.00	23.30	1	0	1
Hing	1,73	1.20	2.89	4.67	31.83	ı	0	ļ
	0 33	3.96	1.56	2.36	13.59	1	0	
- Spar Center	83.80	19,33	2.13	8.06	22.45	١	0	I
Spar Forward	0.00	00.0	1	0.00	2.19	1	0	١
	5, 78	2.31	2.53	3.26	46.15	}	0	l
Stringer ,	3.37	3.91	3.05	3.38	53.31	1	φ (1
Stringer ,	0,30	0.45	9.07	8.44	26.00	1	o (1
or Tilder & Congres) :					1	0	1 1
Wing Center Section	,	•	ŭ		18 15	1	0	1
- Stringer, AFt	4.00	00.0	0.00		7 15	١	0	1
	0.00	90.0			1.15	1	0	1
- Stringer, Forward	000	9.5	2 18	1 86	21.56	1	0	1
	900	T 00	07:5	}	1.15	1	0	1
- Spanwise Beam, Jehrer - Spanwise Beam, Forward	1.88	00.0		1	1.25	1	0	1
Pressure Loaded Total	4.57	4.12	1.92	1.81	49.70	41.40 86.25	0 0	m l
Flight Loaded Total	1.72	70.7	5.23	5.13		•	l	
Total	2.30	3.02	2.74	2.51			7	m

TABLE 1. (Continued)

(g) Actual Failure Rate Full	*					
ite Sample	2.01E-13 3.90E-14	1.08E-15 1.84E-14 2.85E-16 2.43E-10 8.60E-17	3.826-12 1.446-12 1.126-11 0.006-00 3.996-12 1.646-11	0.00E-00 0.00E-00 0.00E-00 9.88E-13 0.00E-00		2.84E-10
(f) Estimated Failure Rate Full - Sa	6.70E-15 1.16E-11	4.54E-18 1.18E-16 6.70E-18 3.63E-10 2.45E-16	4.34E-12 1.09E-12 6.19E-11 1.61E-14 8.35E-12 1.11E-10	7.57E-13 2.60E-14 4.37E-15 5.86E-12 1.38E-13 5.83E-14	6.26E-13 7.51E-10	5.83E-10
sate Sample	3.58E-15 1.78E-14	6.47E-18 9.49E-14 2.17E-17 2.55E-13		3.08E-14 1.49E-15 0.00E-00 3.49E-13 1.94E-13 4.69E-15	1 1.03E-14 1 3.02E-11	1 3.02E-11
(e) Estimated Failure Rate Using Average	2.54E-15 5.02E-14	4.54E-18 9.82E-18 6.70E-18 1.61E-11	3.98E-12 8.55E-13 1.85E-11 1.95E-14 3.14E-12 4.64E-12	7.81E-13 2.90E-14 5.07E-15 1.18E-12 1.54E-13 7.39E-14	4.80E-14 6.71E-11	5.00E-11
Element	Door Frame Window Frame	Fuselage - Main Frame, Bottom - Main Frame, Side - Main Frame, Top - Stringer, Bottom - Stringer, Side	Wing - Access Frame - Spar, Aft - Spar, Center - Spar, Forward - Stringer, Aft - Stringer, Center - Stringer, Forward - Stringer, Forward	Wing Center Section - Stringer, Aft - Stringer, Center - Stringer, Forward - Spanwise Beam, Aft - Spanwise Beam, Center - Spanwise Beam, Center - Spanwise Beam, Forward	Pressure Loaded Total Flight Loaded Total	Total

* Note: No actual failures occured in demonstration run.

TABLE 2A

COMPARISON OF CRACKS DETECTED AT EACH INSPECTION
LEVEL PER MILLION FLIGHT HOURS

	FUI	T.	SAME	PLE	MRR-9	BDR
	Cracks	% of	Cracks	% of	Cracks	% of
	Detected	Total	Detected	Total	Detected	Total
Preflight	24.87	9.56	25.34	7.82	2.87	4.3
Service	20.89	8.03	20.81	6.42	7.93	11.8
Phase	28.49	10.95	29.86	9.22	10.94	16.3
Overhaul	147.24	56.59	200.45	61.87	24.21	36.1
Special	38.69	14.87	47.51	14.66	21.14	31.5
Total	260.18	100.00	323.98	100.00	67.09	100.0

TABLE 2B COMPARISON OF SIZE OF CRACKS DETECTED

	FULL Average Length (inches)	SAMPLE Average Length (inches)	MRR-SDR Average Length Where reported (inches)
Preflight	1.573	1.943	Milyanii 100
Service	1.719	1.812	The same
Phase	1.688	2,505	49,000 cm
Overhaul	1.375	1.467	Name and
Special	1.771	2.014	National Property and
Fuselage Total	1.741	1.815	1.99
Wing Total	1.118	1,470	2.16
Total	1.515	1.718	2.089 (1.567)*

^{*} All reports, assuming 5/8" length when not reported.

TABLE 3. DEMONSTRATION RESULTS FOR DOOR FRAME (FUS-DOR-FRM & FUS DOR-FRF)

	Defects Per Million Flight Hours SAIFE (*) MRR/SDR
Crack Detected	
Preflight Service Phase Overhaul Special Total	0.00 (0.00) 0.16 0.47 (0.00) 0.08 1.73 (0.20) 0.93 5.54 (0.07) 0.55 3.13 (0.33) 0.08 10.87 (0.60) 1.80
Corrosion Detected	
Preflight Service Phase Overhaul Special Total	0.00 (0.00) 0.00 0.74 (0.07) 0.06 0.20 (0.00) 0.12 14.93 (13.33) 0.12 0.33 (0.00) 0.00 16.28 (13.40) 0.30
Fail-Safe Damage Failures Service Damage Production Defects	0.00 (0.00) 0.02 0.00 (0.00) 0.23 (0.00) 0.15 0.00 (0.00) 0.00

ALRCRAFT TYPE: HYBRID

HAMBER OF AIRCRAFT IN FLEET: 500

AIRCRAFT SERVICE LIFE: 68885 HOURS

SUMMARY OF STRUCTURAL ELEMENT: FUS-DOR-FRM

	PRODUCTION DEFETS	9	•	SPECIAL	4.2 .29 8.89	2.96
OF AIRCRAFT DEFECTS	SERVICE DAMAGE PR	3389 54863 29277	AND LEMETH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION	C-LEVEL D-LEVEL	ı	
NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS	CORROSION	42 716 58651 32796	ENGTH OF CRACKS DETECTED	B-LEVEL C	5.00 d 5.00 d 5.00 d	
· ·	FIRST CRACK	228 3309 59792 5573	NUMBER AND LE	A-LEVEL		
		OCCUMENCES MIN (HRS) MAX (HRS) AAX (HRS)			NIN(IA) NAX(IA) AVG(IN)	

MÜMBER AND AREA OF CORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

SPECIAL	5	75.66	50° 55				
D-LEVEL	2	121.48		16984			.320231539260
C-LEVEL	e a	39.27	666	1600		-15/HR	EV. 1.722 865334145 8 =
B-LEVEL	2.92	26.21	375	375 375	ACTED: 5	//CE: 75 USING AVG: 4.57E	:
A-LEVEL	•	. .	50	8.00	INSPECTIONS COND.	MODIFIED IN SERI	ITE FALLONE MATE EAN(IN) 2.11 BILITY CURVE FIT
:	NEW (SQ.IN)	AV8 (50.1R)	INSPECTION INTERVA	ZHORY EST Z DHOEST	NUMBER OF SPECIAL	NUMBER OF AIRCRAFT ESTIMATED ELEWENT FRITHATED ET ENEUT	SAMPLE CRK. LGT. N CAK. LGT. VS PROBA
	A-LEVEL G-LEVEL G-LEVEL D-LEVEL	A-LEVEL B-LEVEL C-LEVEL D-LEVEL OCCURREDCES 0 2.92 2.4 MINISTRACEORINI 0 2.92 3.4	OCCURREDICES 0 10 3 24 NAMISOLINI 0 2.92 3.05 19 NAMISOLINI 0 2.92 3.05 17 AVE (50.1N) 0 26.21 39.27 121.48 12.14 0 12.71 14.62 15.93	OCCURRENCES A-LEVEL O-LEVEL C-LEVEL D OCCURRENCES 0 14 3 3 3 3 8 3.85 3.	A-LEVEL A-LEVEL C-LEVEL C-LEVEL D-LEVEL MAXISGO.IN 0	A-LEVEL A-LEVEL B-LEVEL C-LEVEL B-LEVEL B-LEVEL C-LEVEL B-LEVEL B-LE	A-LEVEL B-LEVEL C-LEVEL C-LEVEL 0

•413 .294 .294 .294 AVERAGE FLIGHT CRACKS 0. AVERAGE PRESSURE CRACKS

STA. NO.

STRUCTURAL FAILURES FLT. HOURS

AIRCRAFT NO.

RESIDUAL STREWETH EQUALS FAIL-SAFE STREWGTH
AIRCRAFT NO. FLT. HOUPS SYA. NO.

AIRCRAFT TYPE: HYBRID

N FLEET: 580 AIRCRAFT SERVICE LIFE: 68589 MOURS

NAMMER OF AIRCRAFT IN FLEET: 589 AIRCRAFT SERV SUMMARY OF STRUCTURAL ELEMENT: FUS-DOR-FRE

NAMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

PRODUCTION DEFECTS							D-LEVEL SPECIAL	1.2.1		1.92	F INSPECTION		D-LEVEL SPECIAL		20 1/2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		55	1600					.315656424939	REMETH E	11: *CO-3	
SERVICE DANVE	.	. 1	• (9		MUNICIPAL MAD LEMETH OF CRACKS DETECTED AT EACH LEVEL OF INSTITUTION	CALEVEL	m (3.72 7.16	*	MOTION OF THE STATE OF THE PETTON OF THE PET		C-LEYEL	7 W	•		1000	367	365		ğ		en E		AISCRAFT MO.	
CORPOS 1 OK	 w	245	82248	2773		SMETER OF CRACKS DETECT	Brane.	v	6 12 12 13 14 14 14 14 14 14 14 14 14 14 14 14 14			e commostem perects un	PLEME	 15.28	15.28	15.25	375	375	375	: :	105:	RATE USING AVB: 5-515-15/ RATE: 5-53E-15/NF-	SAMPLE CORC. (67. MEAM (14) 3.45 SAMPLE 519. U.S. C.		STA. MG.	•
FIRST CRACK	 16	18217	59681	92424		IN CHE REGISTER		•	:	• • •	,	HUNGER AND APEA O	A-LEVEL	-				2 S		SPECIAL INSPECTIONS CONDUCTED:	FT MODIFIED IN SERVICE:	T TYPE FAILURE RATE USING AVE: 5.	MEAN(IN) 3.45		NO. FLT. HOURS	
	 Section Section	THE PARTY OF THE P		446(1465)	1	1		 Sales Com	MIN(IN)	AVG (TH)				OCCUBIENCES	MIN (SC.IN)	AV6 (56.1R)	THEPECTION DATEMALS (HPS)			11336 OF SPECIA		ESTIMATED ELEMENT	SAMPLE COK. 167		ATROPAFT MO.	

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AMERICE FLEGAT CRACKS .245 .245 .244 .244 .174

TABLE 4. DEMONSTRATION RESULTS FOR WINDOW FRAME (FUS-WIN-FRM & FUS-WIN-FRF)

Crack Detected	Defects Per Million SAIFE (*)	Flight Hours MRR/SDR
Preflight Service Phase Overhaul Special Total	0.00 (0.00) 0.00 (0.00) 2.74 (0.67) 13.40 (0.80) 2.86 (0.33) 19.00 (1.80)	0.06 0.06 0.12 0.67 0.18 1.09
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.00 (0.00) 0.00 (0.00) 0.00 (0.00) 0.27 (0.07) 0.00 (0.00) 0.27 (0.07)	0.02 0.00 0.02 0.02 0.02 0.08
Fail-Safe Damage Failures Service Damage Production Defects	0.00 (0.00) 0.00 (0.23) 0.43 (0.07) 0.23 (0.23)	0.02 0.18 0.00

^(*) FUS-WIN-FRF only

MUNGER OF AIRCRAFT IN FLEET. 500

AIRCRAFT SERVICE LIFE: Stood No. Pr

SUMMARY OF STRUCTURAL ELEMENTS FUSHAFIRM

NUMBER AND TIME 10 INITIALION OF ALRUPAFT DEFECTS

ì

CANADA DA PARA	12	• • • • • • • • • • • • • • • • • • • •		
SEPAICE DAMAGE	W.	423	59112	40 ce 101
C0690S104	u u	4 1 m	55596	36718
	146	607	11003	14654
		OCCURRENCES	E X (X (AY\$ (HPS)

MANSER AND LENGTH OF CHACKS DETECTED AT EACH LEVE, OF INSPECTION

125 5.21 5.25
2-E 4E 31 31 2-99 1-01
ם וני ייי וש יייי וש
A-LEVEL
OCCUBBENCES MIN (IN) MAX (IN) AVG (IN)

NUMBER AND APER OF CORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

}	A-LEVEL	B-15 (EL	C-LEVEL	D-LEVEL	1 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
0CCURRENCES MIN (50°, IN) MAK (50°, IN) AV6 (50°, IN)		ವ ಪಿಕಿಳಿ	ន រដ្ឋ ស្រួប	2.25 2.25 2.4.17	
IMSPECTION INTERVALS (MS) BUILTAL SHORTEST LONGEST	<u>VALS (MRS)</u> 50 50 80	5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5	# 60 (P # 60 (P) # 11 (F)	3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	
NUMBER OF SPECIA NUMBER OF STRUCI NUMBER OF STRUCI ESTIMATE ELEME SAMPLE CAN. LOT.	UNDER OF SPECIAL INSPECTIONS COMBUCISD: 13 UNDER OF STRUCTURAL MODIFICATIONS: 13 UNDER OF ARCRAFT MODIFICE IN SERVICE: 268 STRUCTED ELEMENT TYPE FAILURE MATE USING AND: 4.3mE-14/ms STRATED ELEMENT TYPE FAILURE MATE: 5.18E-13/Ms. TARRIED ELEMENT TYPE FAILURE MATE: 5.18E-13/Ms. TARRIED ELEMENT TYPE FAILURE FAILURE SAMPLE STD. DEV. 1.77E-13/Ms. UNT. 8 PROBABILITY CHRYE FIT CONS": A = -10.755431124532	0: 13 1268 126 4V6: 4.345-14/m- 5.125-13/m4. 5.45E-13/m4. 5.45E-17.0EV. 1.776.	/mp 1.576 124533 h #	.637644575576	

STRUCTURAL FAILURES
FLT. HOURS

PESIOUS STRENGTH EQUALS FALL—SAFF STRENGTH ALRESTONS NO.

STA. "5. AIRCRAFT NO.

AVEDAGE FLIGHT CRACKS 1.605 1.605 .c.s .215 .649 AVEDAGE PRESSURE CHACKS .521 .561 .471 .441

- -

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ATHOUGHT TYPE: MYBRID

NUMBER OF AIRCRAFT IN FLEET: 555

AIRCRAFT SERVICE LIFE: 60610 HOURS

SUBMARY OF STRUCTURAL ELEMENT: FUS-wIN-FRF

MUNNER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

operation of the state of the s	99EC14.	
PRODUCTION DEFECTS	1459ECT104 B-LEVEL 12 14 6-14 6-15 2-44	OF INSPECTION
2337 22936 15293	NUMBER AND LEWSTH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION	MINDER AND AKEA OF COSADSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION
2216 3216 3216 3216	EMSTH OF CRACKS DETER	F COGRESSION DEFECTS
FJRST CRACK 15 252 59688 41554	A-LEVEL	NUMBER AND AVEA O
OCCUMENCES HER (1965) HAX (1965) AVG (1965)	OCCURRENCES #IN [18] #AF (18) AV6 (18)	ı ļ

MUMBER AND AMEA OF COGRESSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

# C 40			RESIDUAL STRENGTH EQUALS FAIL-SAFE STRENGTH IPPCRAFT NO. FLT. HYNDS CTA. WO.
D-LEVEL 1.17 3.17 3.17	3256 3266 31641	903671582109°	RESIDUAL STRENGTH EDUALIPECART NO. FLI
C-LEVEL	1880 1986 3129	. 341 37 B	•
T S S S S S S S S S S S S S S S S S S S	375 375 375	COMBOUCTED: 3 110MS: 2 4 SERVICE: 138 5 PATE USING AV6: (5 PATE: 1,10E - 11/21 5 3 SAMPLE ST 6 FIT COMST: A = -18	265 S STA. #0.
S	METTAL 50 MITTAL 50 MORTEST 55 MOREST 55	AUGREE OF STRUCTURAL WOOFICATIONS: AUGREE OF STRUCTURAL WOOFICATIONS: STIMATED ELEMENT TYPE FAILURE RATE USING AVG: 6.772 - 15/78. SSTIMATED ELEMENT TYPE FAILURE PATF: 1,102 - 11/28. SAMPLE CRX. LGT. WEAKIN: 1.93 SAMPLE STD. DEV. 1.34 DAY. LGT. WS POOGRABILITY CUPYE FIT COMST: A = 10.835435890537	STRUCTURAL FAILUDES
OCCURRENCES HIM (SG. JH) MAX (SQ. JH) AYG (SQ. JH)	INSPECTION INITIAL SHORTEST LONGEST	MARGER OF MUMBER OF ESTIMATED ESTIMATED SAMPLE COX.	AIRCPAFT 100.

AVERAGE FILEMT CRACKS 1.505 1.605 .516 .519 .648
AVERAGE PRESSURE CRACKS .561 .561 .471 .448

11.

PANDOM X SEED (2) SEED (2) SEED (4) SEED (6) SEED (7) SEED (7) SEED (9) SEED (9) 11

AIRCRAFT TYPE: HYBRID

ALKERTI ITEL TIBESD

NUMBER OF AIRCRAFT IN FLEET: 500

AIRCRAFT SERVICE LIFE: 60000 MOURS

	TBII4 MOURS	
JS=#IN=FRM=6936	ACTUAL AYERAGE FATIGUE LIFE: 78114 MOURS	
STRUCTURAL ELEMENT: FUS-WIM-FRM-6936	PREDICTED AVERAGE FATIGUE LIFE: 229419 HOURS FATIGUE TEST THE 69833 MOURS	

A-LEVEL AND LEMETH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION A-LEVEL G-LEVEL C-LEVEL D-LEVEL 9 0 0 1.45 4.65 0.0 0 2.80 1.21 A-LEVEL B-LEVEL C-LEVEL OF INSPECTION A-LEVEL B-LEVEL C-LEVEL D-LEVEL 1.21 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
5 5 1
375
275 275 275 275 275
CRACK LENGTHS AND CORRESPONDING CUMULATIVE PROBABILITY OF FAILURE CPA_LGT_ 43249 54861 1.73

	6.7.3	2.93				1.34		2.76	₹.	•						Maria Control	1,21	2.26	wo.	3,3%	2,92	•16	59.			79.	4.19		10-14-07 av.	OF SPECIAL INSPECTIONS COMOUCIFD: 1	COLFICATIONS: 1	RACE MOUNTED FAITURE LIFE: 114311 WOURS	TOTAL TEN IN SERVICE	FAILURE REIE: Loibe-14/MV.	RESIDUAL STREET EGGES PERSONNESS PRESIDUAL STREET PERSONNESS PERSO		
7	_	•	5.5	32	37		\$!	286	 7.0	11	12	9+	5*	7.5	\$1,	1	173	216	158	268	528	542	962	271	293	127	414	227			A STRUCTURAL	THAT ALIMA AVERAGE MOSIFIED A	٠.		ATOMOST MO		.

RESIDUAL STRENGTH EQUALS FAIL-SAFE STRENGTH AIRCRAFT NO. FIT, HO:05

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TABLE 5. DEMONSTRATION RESULTS FOR FUSELAGE - MAIN FRAME, BOTTOM

Crack Detected	Defects Per Million SAIFE	Flight Hours MRR/SDR
Preflight Service Phase Overhaul Special Total	5.83 2.80 1.30 9.80 1.27 21.00	0.57 0.67 0.47 1.53 0.38 3.62
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.43 0.13 0.07 1.83 0.63 3.09	0.34 1.10 0.41 1.99 0.55 4.39
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.73 0.17	0.22 0.44 0.06

AIRCRAFT TYPE: HYBRID

AIRCAAFT SERVICE LIFE: 60983 HOURS MUMBER OF AIRCRAFT IN FLEET: 500

SUMMARY OF STRUCTURAL ELEMENT: FUS-MF8-601

NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

OCCUPATINCES MEN (MES) MALK (MES) AVE (MES)	1111	27.0	2.8		**********
AVG (PRS)	400	9-7 	5 4 F		ın ļ
AVGILAS	62465	59457	57826		
	24644	30535	32413	•	;
	MUMBER AND LE	EMETH OF CRACKS DETE	MOMBER AND LENGTH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION	INSPECTION	
	W-LVEL	BAEVEL	C-LEVEL	CHEVEL	SPECIAL.
OCCURRENCES	175	1	66	ž	3,4
MINCINI	• 65	*	140	.21	
MARCIE)	7.46 2.20	5.41 2.22	5.34	1.11	T ***
	MUMBER AND AREA OF	COMPOSION DEFECTS	NUMBER AND AREA OF CORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	EL OF INSPECTION	
	A-LEVEL	BALEVEL	C-LEMEL	D-LEVEL	Telijan
i de la constanta de la consta		,	-	***************************************	:
#7# (£0-7#)	1.74	6° (* • • • • • • • • • • • • • • • • • •	2.46		2,42
MAX (\$0. IN)	34.11	16.29	6.52	176-13	134.24
AY6 (\$0.1M)	12.42	1,2	4.16	**:1*	43.43
INSPECTION INTERVALS (MRS)	5(1485)				
INITIAL		375	1800	1698	
_ 1	56	375	1688	1468	
Lougest	5	375	- CA	32110	
NUMBER OF SPECIAL INSPECTIONS CONDUCTED:	HSPECTIONS CONDUCT	150: 37 17			
MURIER OF AINCRAFT MODIFICO IN SERVICE: 1373 ESTIMATED ELEMENT TYPE FAILURE PATE USING AYE. 4.2 ESTIMATED ELEMENT TYPE FAILURE PATE: 4.54E—14/M4. SAMPLE CAK. LEGG. MEANIN) 13.63 UNA. LGT. WS FORBABILITY CLAYFE FIT COMST: A = -13.4	MODIFIED IN SERVIC TYPE FAILURE PATE (TYPE FAILURE PATE: JAMILIN 1.69	MANNER OF ARCHAFT MODIFIED IN SERVICE: 1373 ESTIMATED ELEMENT TYPE FAILURE PATE USING ACE: 4,54E-18/HH ESTIMATED ELEMENT TYPE FAILURE PATE: 4,54E-14/HH. SAMPLE CHK, LET, MEANIN) 1.69 SAMPLE STD, 2EY, 3.30 JAK, LET, NY PROBABILITY QURYE FIT COMST: 8 H -13,967645224737	3.361 737	46470587056	
STRUCT	STRUCTURAL FAILURES	!		RENGTH E	IL-SAFE STRENGTH
AIRCRAFT MO.	FLT. MOURS	STA. #0.	SINCESET WO.	5. FLI. 40045	Sales Sales

AVERAGE F.164T CPACKS 1.645 1.645 .018 .818 .4.5 AVERAGE PRESSME CEACKS .361 .561 .471 .411 .4.5

TABLE 6. DEMONSTRATION RESULTS FOR FUSELAGE - MAIN FRAME, SIDE (FUS-MFR-SID & FUS-MFF-SID)

	Defects Per Million Flight Hours SAIFE (*) MRR/SDR
Crack Detected	0.24
Preflight Service Phase Overhaul Special Total	0.00 (0.00) 0.34 0.00 (0.00) 0.69 4.80 (1.40) 0.76 29.07 (8.67) 3.57 10.06 (5.33) 0.69 43.93(15.40) 6.05
Corrosion Detected	
Preflight Service Phase Overhaul Special Total	0.00 (0.00) 0.00 0.00 (0.00) 0.07 0.20 (0.13) 0.07 2.00 (1.33) 0.54 0.20 (0.07) 0.07 2.40 (1.53) 0.75
Fail-Safe Damage Failures Service Damage Production Defects	0.00 (0.00) 0.04 0.00 (0.00) 0.50 (0.03) 0.33 0.07 (0.00) 0.15

^(*) FUS-MFF-SID only

AIRCRAFT TYPE: MYRRID

MIMBER OF AIRCRAFT IN FLEET: 500

AIRCRAFT SERVICE LIFE: 60980 MOUMS

SUMMARY OF STAUCTURAL ELEMENT: FUS-MF9-SID

NUMBER AND TIME TO INITIATION OF AIMCRAFT DEFECTS

OCCURRENCES MIN (HRS) MAX (HRS)	F1857 CAACA 871 1553 59937 49131	45 101 59365	SERVICE DAYAGE 22 3538 57862 27022	PRODUCTION DEFECTS	<u> </u>
OCCURRENCES MIN (IN) MAK (IN) AVG (IN)	NIMRER AND L	ENGTH OF CHACKS DET	NUMBER AND LENGTH OF CHACKS DETECTED AT EACH LEVEL OF INSPECTION A-LEVEL A-LEVEL B-LEVEL		Sper I st. 71 71 71 72 71 72 72 72 72 72 72 72 72 72 72 72 72 72
OCCURRENCES MIN (SG. IN) MAK (SG. IN) AVG (SG. IN)	NUMBER AND AMEA O A-LFVEL 0 0.	F CORROSION DEFECTS A-LEVEL 0 0 0	A-LEVEL A-LEVEL C-LEVEL C-LEVEL D-LEVEL D-LEVE	• •	Spring 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
INSPECTION INTERVALS(HKS) INITIAL SMORTEST LOVGEST	YALS (MKS) 50 50 50	375 375	1000 1000 4399	1600 1600 31641	
NUMBER OF SPECIA NUMBER OF STRUCT NUMBER OF STRUCT NUMBER OF STRUCT ESTIMATED ELEMEN SAMPLE CRK. LGT. CRK. LGT. VS PRO	NUMBER OF SPECIAL INSPECTIONS CONDUCTED: 17 NUMBER OF STRUCTURAL MODIFICATIONS: 14 NUMBER OF AIRCRAFT MODIFIED IN SERVICE: 1301 NUMBER OF ELEMENT TYPE FAILURE RATE USING AVS: 9.80E-18/H4 ESTIMATED ELEMENT TYPE FAILURE RATE: 2.88E-17/H4. SAMPLE CRK. LGT. MEAN(IN) 1.51 CRK. LGT. VS PROBABILITY CURVE FIT CONST: A = -13.580378335537	TED: 17 14 15. 1301 USING AVG: 5.50E-18/ 2.88E-17/HK. SAMPLE STO. DEV. ONST: A = -13.5800783	H ct.	356088443.35	
AIRCRAFT MO.	STRUCTURAL FAILURES FLT. HOURS	STA. HO.	RESIDUAL STI	RESIDUAL STRENGTH FOUAL'S FAIL-SAFF STRENGTH IRCPART NO. FLY, ""HAS STRENGTH STRENGTH FOUNDS.	STRENGTH

AVERAGE FLIGHT CPACKS 1.605 1.605 .81E .21k .009
AVERAGE PRESSURE CRACKS .561 .551 .471 .448

ALMCARFI TYPE: HT9910

AIRCRAFT SERVICE LIFE: 66888 HOURS NUMBER OF AIRCRAFT IN FLEET:

SUBMASY OF STRUCTURAL ELEMENT: FUS-MFF-510

MANGER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

•	FIRST CRUCK	M01504802	SERVICE DAMAGE	PRODUCTION DEFECTS	DEFECTS
OCCURRENCES MIN (HPS) MAX (HPS) AVE (HPS)	959 1135 96956 9656	26111 622+5 646	32178 52178 56711 47876		•111
	LL CHAL ASPRESA	ENGTH OF CRACKS DET	NAMER AND LENGTH OF CRACKS DETECTES AT EACH LEVEL OF INSPECTION	# INSPECTION	
	1	PAEVEL	C-LEVEL	PLENE	SPECIAL.
		-	. 12	957	* ;
OCCUMENCES ata(1b)	•		150	ង់វ	, % %
MAX (TH) AVG (TH)	::	, # .	1.75	1:95	1.73
1 1 1 1		F CURROSION DEFECT	MINISTER AND AREA OF CLOROSTON DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	TEL OF INSPECTION	
,	- A-LEVEL	B-LEVEL	CAEVEL	D-LEVE.	SPECIAL
•			•	26	
OCCURRENCES	•	•	3.85	1.74	37.48
MIN (50-14)	:	• · ·	7.14 5.52	27.5 9	6 4 ° 1 M
AV6 (56.1M)	•	•			
INSPECTION INTERVALS (1465)	EPVALS (MAS)	375	69 (60 (14)	1695	
19111M	1 W	375		3091	
153	35 180	375	4384		
MUSSER OF SPECIAL INSPECTION MUSSER OF STRUCTURE, WOLFFINGER OF ALRCRAFT WOLFFINGER STRUCTURE FALSE STRUCTURE FALSE CAR. LET. MEAR (19) COR. LET. MEAR (19) COR. LET. MEAR (19) COR. LET. MEAR (19)	updeze of special impecitions combucted: 8 Mundeze of statutional modifications: 16 Mundeze of alachart modified in Schwidt: 1148 Estimated Element type failure hate using and: 9.436-13/H- Estimated Element type failure hate using and: 9.436-13/H- Sample car, 161, meanin; 1.62 Sample car, 161, meanin; 1.62 Sample car, 161, meanin; 1.62 Sample car, 161, meanin; 1.62	TED: 9 16: 1148 USING AYG: 5.8.5E-19/HZ : 2.8TE-15/HG. SAMPLE STD. DEV. COMSI: A = -13.552814184	# M	.347369895239	,
Targati	STRUCTURAL FAILUPES FLT. HOUPS	STA. #6.	•	PESIDUAL STRENGTH EGUALS FAIL-SAFF STREATH INCREST NO. FLY, MOUNS STA. W.	All-Safe States to
	4			1	

AVERACE FILSHT CRACKS 1.665 1.665 .618 .818 .471 .44
AVERACE PRESSURE CRACKS .561 .561 .471 .44

TABLE 7. DEMONSTRATION RESULTS FOR FUSELAGE - MAIN FRAME, TOP

Crack Detected	Defects Per Million Flight Hours SAIFE MRR/SDR	
asacu macacaa		
Preflight	0.00 0.00	
Service	0.00 0.00	
Phase	2,23 2.86	
Overhaul	6.07 1.57	
Special	1.37 1.14	
Total	9.67 5.57	
Corrosion Detected		
Preflight	0.00 0.00	
Service	0.00 0.00	
Phase	0.07 0.00	
Overhaul	0.33 0.00	
Special	0.07 0.00	
Total	0.47 0.00	
Fail-Safe Damage	0.00 0.00	
Failures	0.00	
Sorvice Damage	0.33 0.02	
Production Defects	0.10 0.15	

AIRCRAFT TYPE: HYBRID

NUMBER OF ALPCRAFT IN FLEET: 500 AIRCRAFT SERVICE LIFE:

64448 mXJRS

SUMMAKY OF STRUCTURAL ELEMENT: FUS-MFF-10P

NUMEER AND THE TO INITIATION OF AIRCRAFT DEFECTS

PHODUCTION DEFECTS	•	! !
SERVICE DAMAGE	3607	54663 323 65
CO990510N	47	586 31215
FIRST CRACK	1893	59991
	OCCURRENCES	AVG (HRS)

NIMMER AND LENGTH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION

. 35 6.33 7.06
9-LEVEL 182 23 5,92 1,76
C-LEVEL 67 6.57 1.80
D D D D D D D D D D D D D D D D D D D
A-LFVEL
OCCURPENCES MIN(IN) MAX(EN) AVG(IN)

MANBER AND AMEA OF CORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

Spectal.		
D-1 EVEL 11.05 47.22 21.05	0 8 4 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	15481265472
C-LEVEL 13.50 17.50 15.50	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D: 1H 3 1H 12PK 1H 2VC: 4,702-18/HR 5,70E-19/HH- 5,409LE 5TD, DEV, 1,242 51: A = -13,675825818191 = =
B-LEVEL	375 375 375	OMDUCIED: 1: OMS: 23 SEEVICE: 12rk KATE: 5.79E-18/HP. 2
A-LEVEL	INSPECTION INTERVALSTHYS) SO HITTAL HOPTEST SO SO	ANNUER OF SPECIAL INSPECTIONS CONDUCTED: 1: ALMBER OF STRUCTURAL PODIFICATIONS: 23 ALMBER OF AIRCRAFT WODIFIED IN SEPVICE: 12PA ESTIMATED ELEMENT TYPE FAILURE RATE: 5,70E-18/HB ESTIMATED CRK. LGT. WEARINY 1.42 SAMMLE CRK. LGT. WEARINY 1.42 CRK. LGT. VS PROGRABILITY CLIPVE FIT COMST: A = -13.675825618191 = =
OCCÜRPENCES HIN (SQ.IN) MAX (SQ.IN) AVÉ (SQ.IN)	INSPECTION I INITIAL SHOPTEST	AUMBER OF ST MUMBER OF ST MUMBER OF AL SSTIMATED EL SSTIMATED EL SAMPLE CRK.

RESIDUAL STREMETH EQUALS FAIL-SAFF STRENTM AIDCHAFT NO. FLT. MOUSS STAFF STAF. NO. 514. 10. STRUCTURAL FAILURES FLT. HOURS AIRCRAFT NO.

AVERAGE FLICHT CRACKS 1.465 1.405 .216 AVERAGE PRESSURE CRACKS .561 .561 .4T

TABLE 8. FUSELAGE - STRINGER, BOTTOM (NOT INCLUDED IN REVISED DEMONSTRATION

TABLE 9. DEMONSTRATION RESULTS FOR FUSELAGE - STRINGER, SIDE

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Crack Detected		
Preflight Service Phase Overhaul Special Total	0.00 0.00 1.80 14.40 4.87 21.07	0.34 0.69 0.76 3.57 0.69 6.05
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.00 0.00 0.73 1.40 0.07	0.00 0.07 0.07 0.54 0.07
Fail-Safe Damage Failures Service Damage Production Defects	0.03 0.00 0.20 0.17	0.04 0.33 0.15

AIRCPAFT TYPE: HYBRID

AIRCRAFT SERVICE LIFE: 66480 HOURS MUMBER OF AIRCRAFT IN FLEET: 500

SUMMARY OF STRUCTURAL ELEMENTS FUS-STR-SID

MUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

	FIRST CBACK	COPROSION	SERVICE DAPLEE	PRODUCTION DEFECTS
ı			***	
OCCURRENC 35	943	15	•	
178(186)	683	2478	*I0*	
	5844	55624	55472	
AVG (HPS)	4468	30369	31952	
Ī	NEMBER AND LE	EMETH OF CRACKS DET	MANDER AND LENGTH OF COACKS DETECTED AT EACH LEVEL OF INSPECTION	F 1NSPECTION
		ı	į	
1. 1	A-LEVEL	BALEVEL	CHEVEL	
•			***	7.3
OCCURRENCES	•	a	17	
	•	•	¥4.	
MAK (IW)	•	•	2 47	1.31
4V6 (IN)	•	•	•	
1 1 1	2 1 3 C 1 1 1 3 3 3 3 3 3 3 3 3 3 3 3 3 3	F CCRROSION DEFECTS	ANTERES AND AREA OF CERROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	EL OF INSPECTION
	A WILLIAM AND MANUAL AND			
	A-LEVEL	6-LEVEL	CHENEL	D-LEVEL SOFETAL
	***************************************		•	
OCCURREDCES	n	v		
MTB (SG. IN)	•	• • • • • • • • • • • • • • • • • • • •		
MAX (56. 1k,	•	;	30.65	
AY6 (50. IN)	ů,		16.21	
TAKOPETION THIFDAM S (MES)	LI S (refS)			
THITTE	100 100	375	3001	0.00
- Correct	G G	375	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	→10
LONGEST	1	375	5885	3 B B B B B B B B B B B B B B B B B B B
MANAGER OF SPECIAL	SPECIAL INSPECTIONS CONDUCTED:	TED: 21		
NUMBER OF ATREMAS	AIRCRAFT WOOIFIED IN SERVICE:	(CE: 1690	9	
ESTIMATED ELEMENT	ESTIBLIED ELEMENT TYPE FAILURE RATE USING AND: LOLINIAL. POTIESTED ELEMENT TYPE FAILURE RATE: 30-535-10/50-	USING AVE: 1-515-1 : 3-53E-18/749.		
SAMPLE CRY. LGT. MEAN(IN)	\$301FE CRY LET MEMETERS 1.17 SAMPLE STD: DE4. 1.58 \$200FE CRY WE PROBABILITY CURVE FIT COMST: A = -16.656342933991	SAMPLE STD. DEW. 1.585 CONST: A = -10.556342933991	* 60	.383a94a22776
STROSET MA	STRUCTURAL FAILURES	STA. W.	RESIDUAL STA	T T I S T I
			464	52525
			;;	

.543 AVERAGE FLIGHT CRACKS 1.665 1.665

RANDOM MUMBER SEEDS
SEED(1) = 1701940590240608
SEED(2) = 170194057769241
SEED(3) = 39223228592327
SEED(4) = 213492192776088
SEED(4) = 701949169276088
SEED(5) = 701949169276088
SEED(5) = 264918260653471
SEED(7) = 264918260653471
SEED(9) = 1107968017080761
SEED(1) = 109160972840761

SERVICE DAMAGE AIRCRAFT NO. 448

MENG-EXPLORATIONY DETECTION LEVEL AT 65872 MODIFICATION 6

ICPH = 0. MCPH = .074 RCPH = .001 TIME = 65872

COMMOSION AIRCRAFT NO. 426

AIRCRAFT TYPE: MYBRID

AIRCRAFT SERVICE LIFE: 60080 HOURS NUMBER OF AIRCRAFT IN FLEET: 500

ACTUAL AVERAGE FATIGUE LIFE: 232552 HOURS STRUCTURAL ELEMENT: FUS-STR-SID-1100

FATIQUE LEST LIFE: 169578 MOURS

Coccumentaries FIRST CRACK CORROSSION SERVICE DAMARE PRODUCTION PRODUCT			MUNICIPAL STATE OF THE STATE OF			DESCRIPTO.
OCCUMENTENCES 21447		FIRST CRACK	MOISOBBOO	SERVICE DAMAGE		Descrip
MINICIPAL 19447		2	-	21447	•	
AVE(1975) 22441 41197 21447 AVE(1975) 260491 21497 260491117 OF FAILURE CRACK LEWGTHS DETECTED AT EACH LEWEL OF 19497 11499 AVE(1975) 275 11499 21499 AVE(1975) 277 277 277 277 277 277 277 277 277 27	OCCUMENCS MTM (HPS)	21447	44797	21412	1	
MANAGER AND LEMETH OF CRACKS DETECTED AT EACH LEVEL EVEL	28	324\$1 26969	14797	21447		
OCCUMENTALS WANTER W	!	GHT 63	FMETH OF CRACKS DETE	CTED AT EACH LEVEL F	H01173	
OCCUMENTES WIN(IN) WANTIN WHOSER AND AREA OF CORROSION GEFECTS DETECTED AT EACH LEVEL OF INSPECTION WIN(SG-IN) WANTINI WANT				EVE.	EVEL	SPECIAL
OCCUMENTALES WINTIN WANGER AND AREA OF CORROSION GEFECTED AT EACH LEVEL OCCUMENTALE WINNERS AND AREA OF CORROSION GEFECTED AT EACH LEVEL OCCUMENTALE WANGESIAN WANGESTAN		4-LEVEL	B-LEVEL		-	•
NATION N			•	•	o	
MAXIEN	OCCUMENTEDCES	•	•	•	1.69	ċ
AVELLA INTERVALS LIMES AND AREA OF CORROSION CEFECTS DETECTED AT EACH LEVEL OF INSPECTION OCCUMENCES. MINISTRAL INTITAL SO STORY INTITAL SO STORY ATRICALET CHEVEL CHEVEL OF INSPECTION OCCUMENT OF TALLUPE OCCUMENT OCCUMEN	MIN (IN)		4 ,	• • • a	1.69	ċ
NUMBER AND AREA OF CORROSION GEFECTS DETECTED AT EACH LEVEL OF INSPECTION OCCUMENTES. 0	AVECINI	:				
OCCUMENCES 0 0 0 0 0 0 0 0 0			S CORROSION DEFECTS	DETECTED AT EACH LEVEL	OF INSPECTION	
NATIONAL STARTS Second Sec	1	MUNICE AND MACA			PLEYEL	SPECIAL
OCCUMPATION OF THE PROPERTY OF TAILUPE OCCUMPATION OCCUMPAT		A-LEVEL	B-LEVEL			a
NATIONALISTED 0		******		c	٠,	
	OCCURRENCES.	-	,	;		•
MAPRICALINA 0			•	•		ė
AVE(SQ0_IN) INSPECTION INTERVALSIONS INITIAL 2		1 (:	•	•	•
INSTITUTE	AV6(50.IN)	•			OK DOM	STIME
INITIAL 50 375 1000 2400		IALS (IMS)		1	3 087	30
INITIAL 50 375 1266 3688 3688 375 1266 3688 3688 375 1266 3688 3688 375 1626 3688 375 1626 3688 375 1636 375 1636 375 1636 375 1636 375 37		4	375		0 5040	7.
2 50 375 1.25 50 5400 4 550 375 1.624 5100 50 375 1.602 1.2156 50 375 1.602 1.2156 50 375 1.602 1.2156 50 375 2.253 1.6084 50 375 3.75 3.20 2.2136 50 375 4.399 2.663 2.3730 2.3730 4.399 2.9663 2.966	1		315	211	3688	5
375 1602 12156 121		, w	375	7671	248	
5 50 375 1862 12156 56 56 375 1862 15186 56 375 56 375 56 575 18984 575 58 575 58 575 58 575 58 575 58 575 58 58	m ·		375	.341	0 0018	.
56 375 2253 15186 15	j •	9 00	375	2001	12156 C	0 F
18984 1898		9	375	2363	15188	. •
58 3730 3520 23730 5520 53730 550 375 50 375 4399 29663 375 4399 29663 50 29663 50 27730 27700 27700 2	© F	. w	375	2816	18984 0	no a
59 379 29663 58 375 4399 29663 58 CRACK LEMETHS AND CORRESPONDING CUMULATIVE PROBABILITY OF FAILUPE CRACK LEMETHS AND CORRESPONDING CUMULATIVE PROBABILITY OF FAILUPE		3 5	379	3520	23730	, 6
SE CRACK LEMETHS AND CORRESPONDING CUMBLATIVE PROBABILITY OF FAILURE CRACK LEMETHS AND CORRESPONDING CUMBLATIVE PROBABILITY OF FAILURE		6 6	275	4399	5962	:
CRACK LEWGTHS AND CORRESPONDING CUMMEATIVE PROGRESSILITY OF THE FLT. HOURS		.				
	. 1	CRACK LENGT	HS AND CORRESPONDING	CUMULATIVE PRUBABILITY CPK.LGT.		B. OF FAILINE
	AIRCART		FLT. MOURS	1		

109

2288 4680 7288 13684 21769 33850 49038 71819

TIME

1.69

1,96-18

MESIDUAL STREMETH EGUALS FAIL-SAFE STREMETH AIRCRAFT NO. FLT. MOURS
A88 58255

TABLE 10. DEMONSTRATION RESULTS FOR FUSELAGE - STRINGER, TOP

	Defects Per Million SAIFE	Flight Hours
Crack Detected		
Preflight Service Phase Overhaul Special Total	0.00 0.00 1.53 5.70 2.07 9.30	0.00 0.20 0.33 2.78 3.38 6.69
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.00 0.00 0.53 0.83 0.03 1.39	0.00 0.00 0.00 0.00 0.00
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.20 0.07	0.00 0.06 0.33

AIRCRAFT TYPE: HYBRID

AIRCRAFT SERVICE LIFE: 68860 HOURS NUMBER OF AIRCRAFT IN FLEET: 505

SUMMARY OF STRUCTURAL ELEMENT: FUS-STR-TOP

	PRODUCTION DEFECTS 5
NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS	SERVICE DAMAGE 20 76 54449 31511
R AND TIME TO INITIAT	CORPOSION 56 31 86 5929 30460
	F1851 CRACK 857 76 59988 45546
	OCCUMPENCES MAK (MES) Ay6 (MES)

HUMBER AND LENGTH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION

	A-LEWEL	B-LEVEL	C-LEVEL	D-LEVEL	SPFCIAL
	• • • •	9 		.28 4.73 1.28	15. 15. 14. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15
	A SEE AND AREA	OF CORROSION DEFECT	IS DETECTED AT EAC	MEMBER AND AREA OF CORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	
	A-LEVEL	9-LEVEL	C-LEVEL	D-LEVEL	SPECIAL
	0 6 5	0	16 2.45 28.83 13.17	25 1.23 46.13 12.89	**************************************
Ž	INSPECTÍON INTERVALS(HRS) 1N111AL 5HORTEST 50 10M6EST 50	315 375 375	2000 2000 4399	3280 1508 31641	
영, 얼얼말들답	MUMBER OF SPECTAL INSPECTIONS CONDUCTED: MUMBER OF STRUCTURAL MODIFICATIONS: 15 MUMBER OF AIRCRAFT MODIFIED IN SERVICE: ESTIMATED ELEMENT TYPE FAILURE RATE USIN ESTIMATED ELEMENT TYPE FAILURE RATE: 2, SAMPLE CRF. LET. MEANTIN 1,06 FOR THAT: WE PERSILITY CHANTE FIT CONST	MUMBER OF SPECIAL INSPECTIONS COMPUCTED: 16 MUMBER OF STRUCTURAL MODIFICATIONS: 15 MUMBER OF AIRCRAFT MODIFIED IN SERVICE: 638 ESTIMATED ELEMENT TYPE FAILURE RATE USING AVE: Z.45E-16/HR ESTIMATED ELEMENT THE FAILURE RATE: Z.45E-16/HR ESTIMATED ELEMENT THE FAILURE RATE: Z.45E-16/HR ESTIMATED ELEMENT THE FAILURE RATE: Z.45E-16/HR SAMPLE CRF. LET. MEAMITH LIV CURVE FIT COMST: A = -13.613661502544	-16/НЯ EV. 1.034 661502544 8 ж	,626638633375	

SAMPLE CRK. LOT. WEARLING 1.00 CRK. LOT. VS PROBABILITY CURVE FIT CONST: A = -13.613661502544 STA. NO. STRUCTURAL FAILURES
FLT. HOURS AIBCRAFT NG.

RESIDUAL STRENGTH EQUALS FAIL-CAFF STRENGTH ALECRAFT NO. FLT. HOUPS

AYERAGE FLIGHT CRACKS 1.605 1.605 .818 .818 .649
AYERAGE PRESSURE CRACKS .413 .413 .294 .294 .293

TABLE 11. DEMONSTRATION RESULTS FOR WING - ACCESS FRAME

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Crack Detected		
Preflight Service Phase Overhaul Special Total	2.33 1.93 0.53 2.87 1.00 8.66	0.04 0.49 0.40 0.81 0.77 2.51
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	3.13 2.27 0.73 2.53 0.53 9.19	0.00 0.00 0.00 0.00 0.00
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.07 0.00	0.18 0.00 0.00

AINCRAFT TYMF: NYSMID

السياعة المراجعة المراجعة المراجعة المستعمل

NUMBER OF AIRCRAFT IN FLFET: 556

AIRCRAFT SERVICE LIFE: 68889 HOURS

SUMMARY OF STAUCTURAL ELEMENT: ANGMACCAFRM NUMBEW AND TIME TO INITIATION OF AIRCRAFT DEFECTS

PRODUCTION DEFECTS	***************	•	1	******	1
SEPVICE DAMAGE		•	11246	55916	20004
COMBOSION		205	267	59921	30858
FIRST CPACF		376	5405	17665	43827
		OCCURRENCES.		MAX (HRS)	AVC (HRS)

WIMBER AND LENGTH OF CHACKS DETECTED AT EACH LEVEL OF INSPECTION

15 16 16 16 16 16 16 16 16 16 16 16 16 16
#
C-LEVEL # 62 1.66 1.05
***LFVEL 29.4 1.21
A-EVEL 35 5.04 5.04
OCCURRENCES MIXIN MAXIN) AVE(IN)

NUMBER AND BUER OF COPOSTOW DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

		724 27-	L-LEWEL		THE COMME

OCCUARENCES	1,4	4.	=	3.6	•
*1X'SO.IN)	1.13	70 1	-2-(9	
GAX (50. IN)	71.47	22.43	16.24		41 14
4Y', (SO. IN)	6.30	5.19	5.70	13.45	75.57
-	MTERVALS(HRS)				
	13	37.		6	
MOPTEST	e si	52.			
LOWGEST	6.5	375	666+	24663	

NUMMER OF SPECIAL IMSPECTIONS COMDUCTED: 6
NUMBER OF STRUCTURAL MODIFICATIONS: 9
NUMBER OF AIRCRAFT MODIFIED IN SEWICE: 457
ESTIMATED ELEMENT TYPE FAILURE MATE: 4.34c-12/-4
ESTIMATED ELEMENT TYPE FAILURE MATE: 4.34c-12/-4
SAMPLE CRK. LGT. MEANIIN] .94
CRK. LGT. VS PROBABILITY CUMVE FIT COMST: 4 = -7.45-487218422

MESTOUR STRENGTH EQUALS FAIL-SAFF STRENGTH AIRCHAFT NO. FLT. HOURS STR. NG.

CTA. NO.

STRUCTURAL FAILUPES
FLT. MOUPS

AIRCRAFT NO.

+715125308287

ĸ

AVERAGE FLIGHT CDACKS 1.405 1.505 .EIN .-1K .549 BVERAGE PRESSURE CRACKS .561 .541 .471 .448

TABLE 12. DEMONSTRATION RESULTS FOR WING - SPAR, AFT (WNG-SPR-AFT & WNG-SPS-AFT)

Crack Detected	Defects Per Million SAIFE (*)	Flight Hours MRR/SDR
Preflight Service Phase Overhaul Special Total	0.40 (0.00) 0.47 (0.00) 1.13 (0.20) 3.34 (1.27) 0.40 (0.20) 5.74 (1.67)	0.72 1.89
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.20 (0.00)	0.35 0.00 0.00 0.00 0.00 0.35
Fail-Safe Damage Failures Service Damage Production Defects	0.00 (0.00) 0.00 (0.00) 0.00 (0.00) 0.03 (0.00)	0.04 0.00 0.04

(*) WNG-SPS-AFT only

Contract the second

ALPOHANT SERVICE LIFE: ATTS: AND THE PARTY OF THE PARTY OF THE PARTY

- POSS AND THE TO IMPLIATION OF ALMONAT DEFECTS

LANGE BATLUCTION DEFECTS			ALTERIC AND ALES OF COPPUTION DEPETTS DETECTED AT FACT LEVEL OF INSPECTION ALTERIC CHEWEL CHEWEL SPECIAL ALTERIC TOPE TOPE TOPE TOPE TOPE TOPE TOPE TOPE	1666 1606 31561	. 25 iBS 144. 187	
SENICE SPARE		6765 67 660-1 6-16-6-1 6-16-6-1 73-7 85-2 85-2 85-3	C-LEWEL 1.49 7.49 7.49	10 to	13/~~ 64-53-65 154-53-65	
.0150ec.3	Mark of the state		COPOURTS DEPENTS	275 276 876	MANAGE OF SPECIAL INSPECTIONS LONGOTFD: MANAGE OF SINUCIDAL ACCIFICATIONS: ESTIMATES ELEMENT TWO FAILURE BATE: Loles ASS: "SSS-13/ ESTIMATES ELEMENT TWO FAILURE BATE: Loles ASS: SSS-13/ ESTIMATES ELEMENT TWO FAILURE BATE: ASS. SSS-13/	
scaen tega		14.27 14.27 14.27	Anappin and action of the second of the seco	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	MANAGE OF SPECIAL INSPECTIONS LONGUISD: MANAGE OF SINUCIDAL ACCIFICATIONS: ESTIMATES ELEMENT TWO FAILURE BATE COLOR 450: ~2 SANTATES ELEMENT TWO FAILURE BATE: 1.846-12/~~2 SANTATES COR. LGT. MEMALIN: ~3 COM. LET. 95 000448 LITY CAMPE FIT CAST: 4 x ~1 COM. LET. 95 000448 LITY CAMPE FIT CAST: 4 x ~1 COM.	
	200026WES WIN (205) WAX (-25) WAS (-25)	20000000000000000000000000000000000000	000, p250025 anta (56 - 18) anta (56 - 18) anta (56 - 18)	INSPECTION INTERVAL-(1-N-S) INITIAL SACREST	MANAGE OF SPECIAL INSPECTI MANAGE OF STRUCTURAL ALGIN MANAGE OF ALPCRAT AND FFI ESTIMATED ELEMENT TYPE FA SAMPLE COM. LET. WE MAKE IN COM. LET. YS PROBABILITY	

AVERAGE FILERT CRACKS 1.695 1.005 .621 .075 .424 AVERAGE PRESENCE CRACKS .551 .651 .047

AIRCRAFT TYPE: MYSGID

NUMBER OF ALRCRAFT IN FLEET: 500

66688 HOURS AIRCRAFT SERVICE LIFE:

SUMMARY OF STRUCTURAL ELEMENT: WNG-SPS-AFT

MUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

PRODUCTION DEFECTS	*************	•	***	•	*****
SERVICE DAMAGE	************	•	ت	•	0
*0IS08202		•	3	۰	•>
FIPST CHACK		35	15567	20E5	21944
		OCCURPENCES	(SUL) RIV	MAX (MDS)	AV6 (APS)

NUMBER AND LENGTH OF CRACKS DETECTED AT EACH LEVEL OF JASPECTION

		19			
C-LEVEL	********	E	1,65	4.84	3.01
TEA olan		6	ŭ.	e.	
A-LEVEL	*******	Ð	• 0	.0	•0
		ACCURRENCES	(MINIIM)	MAX (EM)	IVG (IN)

MUMBER AND AFEA OF COSSISS REFECTS SPTECTED AT FACH LEVEL OF INSPECTION

OCCUPPENCES NIM (50-IN) MAX (50-IM) AVG (50-IM)	A-LEVEL.	13 5 3 2 3 4 5 5 1 4 5 6 6	C-LEVEL	C. C.	SPECIAL 6.
INSPECTION INTEPVALSIMES) INTIAL SHGOTEST LONGEST	S (MKS) 50 50 59	27.6 27.6 27.6	1683 1965 3520	1666 1666 23733	

NUMBER OF SPECIAL INSPECTIONS CONDUCTED: 2
NUMBER OF STRUCTURAL WOOTFICATIONS: 1
NUMBER OF ALPCAST ADDITIONS: 1
ESTIMATED ELEMENT TYPE FAILURE WATE: 5.35E-13/***
ESTIMATED ELEMENT TYPE FAILURE RATE: 5.35E-13/***
SAMPLE CRR, LGT, WEAM(IN) 1.59
SAMPLE CRR, LGT, WEAM(IN) 1.59
CRR, LGT, WEAM(IN) 1.59
CRR, LGT, WEAM(IN) 1.59
CRR, LGT, WEAM(IN) 1.59

.468448212394

H

RESIDUAL STRENGTH EDUALS FAIL-SAFF STOEWHTH AIRCHAFT NO. FLY. MOUNS. STA. *5. STPUCTURAL FAILURES FLT. MOUSS AINCRAFT NO.

alia. eTi AVERAGE FLIGHT CPACKS 1,465 1,695 ,115
AVERAGE PRESSURE CRACKS ,561 ,561 ,471

TABLE 13. DEMONSTRATION RESULTS FOR WING - SPAR, CENTER

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Crack Detected		
Preflight Service Phase Overhaul Special Total	4.47 3.60 2.40 16.60 6.47 33.54	0.00 0.00 0.00 0.20 0.00 0.20
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.33 0.00 0.07 0.27 0.20 0.87	0.00 0.00 0.00 0.00 0.00
Fail-Safe Damage Failures Service Damage Production Defects	0.0 0.00 0.00 0.00	0.02 0.00 0.00

AIRCRAFT TYPE: HYPKID

AIRCRAFT SERVICE LIFE: 60000 HOURS NUMBER OF AIRCRAFT IN FLEET:

SUMMAPY OF STRUCTURAL ELEMENT: WHG-SPR-CEN

MUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

PRODUCTION DEFECTS		****		
SEPVICE DAMAGE	 -	45435	45985	45325
COPPOSION	 58	2375	38 M 99 S	27750
FIRST CRACK	 1763	1906		44356
	SECTION	MEN (105)	(40°C) × 61	AVG (HETS)

MURGER AND LENGTH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION

27. 6. 72
D-LEVEL 249 .16 2.43 .R1
C-LEVEL 36 1.82 1.82
8-LEYEL 54 54 2.15 92
A-LEVEL 57 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
OCCUPPENCES MAX(FW) MAX(FW) AVG(EW)

MUMBER AND AHEA OF COPROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

5.07 5.07 3.02 10.23		
0-LEVEL 7-34 7-34 4-15 17-90	3600 1600 12000	.172555484015
C-LEVEL 2.91 2.81	1000 1000 1000 1000	-11/TH FV = 0-mi 411245000 - F
י ט י י י י י י י י י י י י י י י י י י	375 375 275	NUMBER OF SPECIAL INSPECTIONS CONDUCTED: 13 NUMBER OF STRUCTURAL WODIFICATION: 16 MUMBER OF AIRCART WODIFICO IN SERVICE: 1156 ESTIMATED ELEMENT TYPE FAILURE AIE: 0.192-11/HH ESTIMATED ELEMENT TYPE FAILURE AIE: 0.192-11/HH SAMPLE CRK. LGT. MEAN(IN) 175 CRK. LGT. VS PROBABILITY CUPVE FIT CONST: 4 = -7.045411245000 - 1
A-LEVEL 1.09 6.92 3.74	9VALS (***5) 50 50 50	MAMBER OF SPECIAL INSPECTIONS CUAD-LIFE: 13 MAMBER OF STRUCTURAL MODIFICATION: 14 MAMBER OF AIRCART MODIFIED IN SENICE: 1156 ESTIMATE OF LEMENT TYPE FAILURE HATE: 0-106 AND SAMPLE CAK. LGT. MEAN(IN) AT TYPE FAILURE HATE: 0-105-11 SAMPLE CAK. LGT. WE PAILURE HATE: 0-105-11 CAK. LGT. WS PROBABILITY CUBVE HIT CONST: 4 =
OCCURPENCES MIN (SO.IN) MAK (SO.IN) AVE (SO.IN)	INSPECTION INTERVALS(*MS) INITIAL SHORTEST LOWGEST	NUMBER OF SPECIA NUMBER OF STRUCI NUMBER OF AIRCA NUMBER OF LEWE SSILWATED ELEME SAMOLE CRK. LGT. CRK. LGT. VS PRE

949

RESIDUAL STREMGTM ELUALS FAIL-SAFF STREMGTH AIRCRET NO. FLT. HOWS STA. "".

STA. "D.

STRUCTURAL FAILUMES FLI. HOUPS

AIRCRAFT NO.

ì

TABLE 14. DEMONSTRATION RESULTS FOR WING - SPAR, FOWARD

	Defects Per Million SAIFE	Flight Hours MRR/SDR
Crack Detected		
Preflight Service Phase Overhaul Special Total	0.00 0.00 0.00 0.00 0.00	0.04 0.49 0.40 0.81 0.77 2.51
Corrosion Detected		
Preflight. Service Phase Overhaul Special Total	0.20 0.07 0.13 0.73 0.00 1.13	0.00 0.00 0.00 0.00 0.00
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.00 0.00	0.18 0.00 0.00

AIRCRAFT TYPE: MYSHID

AINCHAFT SERVICE LIFE: 60006 HOURS 560 NUMBER OF AIRCRAFT IN FLEET:

SUNYARY OF STRUCTURAL ELEMENT: ENGASPA-FED

NUMBER AND TIME TO INITIATION OF AIRCRAFT SEFECTS

P-DUUCTION DEFECTS	ಲ	*****	****	******	
St-VICE DAPASE	ü	•	v	ຍ	
301SGE203	36	1039	59337	27049	
FIRST CPACE	ı	31272	52794	63264	
	OCCURRENCES	MIN (HPS)	MAX (MRS)	AV6 (-RS)	

NIMBER AND LENGTH OF CARCKS DETECTED AT EACH LEVEL OF INSPECTION

S-LEVEL				
C-LEVEL				
I EVE				
A-L EVEL	 c	• b	123	e e
	OCCUPATEMCES	M 3 tr (1 tr)	MAX (TR)	TAG(IM)

wyseed and water of company officers refected at Each 1946. UP Invidention

	A-LFVEL	n-14 761	C-LEVEL	D-LEVEL	SPECIAL
	*******		*********		-
OCCURPENCES	m	1	٨	gare.	
MI*(20*1M)	26.4	10.0	7.10	1 a b	
MAK (52.1M)	14.65	165	6.1	- Ed. 74	.,•
4V6 (50, [N)	i i i i i i i i i i i i i i i i i i i	16,05	20.0	25.35	•
INSPECTION INTERV	ILS(==S)				
INITIAL	Ş.	275	1000	004	
S+OPTEST	น้ เ	14.	1001	.04	
LOWGEST	C.	346	1963	3200,	
NUMBER OF SPECIAL	NUMBER OF SPECIAL INSPECTIONS CURVICIFIS:	c			

NUMBER OF SPECIAL INSPECTIONS COMBUCTES: 0
AURHER OF STRUCTURAL "ODIFICATIONS: 0
AURHER OF AIRCRAFT WOURIED: 0
ESTIMATED ELEMENT TYPE FAILURE "ATM. "(FLYS AVE: 1, 40:-1,4/44
ESTIMATED ELEMENT TYPE FAILURE WAT: 1,61E-14/44,

SAMPLE CRK. LGT. WEAMIN) "5x SAMPLE TRY. DEV. 0.237
CRK. LGT. VS PROBABILITY CLAVE FIT COMSTS A = -2,325115P5925A

PROFILED STREAMEN BELLE FALL-WEFF STREAM FOR NO. ATTA- NO. 514. 40. STRUCTURAL FAILUNES FLT. HOUNS AIRCUAFT NO.

696.

**14 •*7

AVERAGE FLIGHT CPACKS 1.40° 1.40°
AVERAGE PRESSURE CRACKS .551 .561 ...

3 x 1.4321/25** x F

TABLE 15. DEMONSTRATION RESULTS FOR WING - STRINGER, AFT (WNG-STR-AFT & WNG-STS-AFT)

Crack Detected	Defects Per Million SAIFE (*)	Flight Hours MRR/SDR
Preflight Service Phase Overhaul Special Total	5.27 (1.27) 6.20 (0.60) 2.87 (0.07) 22.20 (2.27) 2.80 (0.33) 29.34 (4.54)	
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.47 (0.00) 0.94 (0.07) 0.73 (0.00) 0.87 (0.07) 0.20 (0.00) 3.07 (0.14)	0.02 0.02 0.02 0.02 0.02 0.10
Fail-Safe Damage Failures Service Damage Production Defects	0.00 (0.00) 0.00 (0.00) 0.20 (0.00) 0.00 (0.00)	0.04 0.00 0.04

AIRCPAFT TYPE: MYHRID

AIPCRAFT SERVICE LIFE: 60000 MOURS NUMBER OF AIRCRAFT IN FLEET: 500

SUMMANY 'NF STRUCTURAL ELEVENT: WMG-STR-LSA

MUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

	FIPST CHACK	C0000510+	SERVICE DAMARE	PRODUCTION DEFECTS
OCCUMPÉNCES MIN (~455) MAX (~465) AVB (*485)	1087 3885 59999 45722	29 45 45 4545 32515	3483 31541 14154	c
	RUSHINE O AND 1.	EMSTr OF CHACKS DFT	EMPREO AND LEMBTH OF CHACKS DETECTED AT EACH LEVEL OF INSPECTION	JASPECTIDA
	A-LFVEL	H-LEVEL	C-LEVEL	3.1
OCCUPRENCES	99	3.1	, 2, 2,	
#[h(]h) ##(]n) ###(]h)		7.4	14,	2.43
	MARREL AND A-EA	H COFFESTON DEFECT	MAMBEL AND AVEA OF COFPCSION DEFECTS DFIECTED AT EACY LEVEL OF INSPECTION	L GF INSPECTION
	A-LFVEL	75057-4	CALEVEL	O-FFEE SPECIAL
		-	1	
OCCURRENCES MIN (50, 1H)	7.45	2.5	5.62	25.71 51.82
MAK (SQ. EN) AVG (SQ. EK)	18.46 7.38	\$ 1.0 \$ 2.5 \$	14.5	42.14
IMSPECTION INTERVALS(PPS) IMIT:AL SMORTEST	950 50 50 50 50 50	10 to 10 10 to 10 10 to 10	100c 100c 4394	1500 1500 29663
LONGEST MUNGER OF SPECIA	SU SPECIAL INSPECTIONS CU-DUCTFJ: STRUCTURAL WUDIFICATIONS: 12 AIRCRAFT WOOIFIED IN SEWETOFF	CTF.): 15- 17- 16	, ,	
ESTIMATED ELEMENT TYPE FAI ESTIMATED ELEMENT TYPE FAI SAMPLE COR. LCT. MEMILAN COM. LCT. MEMILAN	ESTIMATED ELEMENT TYPE FAILINE MATE USING AV: . LAINE-LLV ESTIMATED ELEMENT TYPE FAILUNE MATE: D-136-11/r ESTIMATED ELEMENT TYPE FAILUNE MATE: D-136-11/r . 64 CAT. MS. BETORGRAFILTY CO-16 FIT COMST: A x = T-555/D-1611	USING AVE: 141VE-117 2-13E-11/F 5AF-LE STÖ- UEV- COMSTI A X =7-55567216	157	47219827682
ST. ST.	STRUCTURAL FASSURES FLT. MONFS	STR. WG.	ASSIBUAL CT.	MESTURIA CT-EMETH FURILS FAIL-SAFE STORETH STACKET AS. PLT. NO ISS STACKET AS.

AVERAGE FLIGHT COACKS 1.405 1.465 .016 .nl. .th. AYERAGE PRESSURE CRACKS .501 .551 .071 .471

CINCHALI TYPE: MYSKID

NUMBER OF AIRCOAFT IN FLEET: Any

AIMCHAFT SEPVICE LIFE: 50800 MOURS

SUMMINY OF STHUCTURAL ELEMENT: WIGHSTS-LSA

MUMBER AND TIME TO INITIATION OF AIMCRAFT DEFECTS

Probuction DEFECTS
SERVICE DANAGE
CGGP0510w
FIRST CHACK 156 HE20 58659 44627
OCCURPENCES HINGORS HAK (1465) AVG (1465)

MUMBEN AAD LEWGIN OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION

25. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.
0-LEVEL 34 . 22 1,67
C-LEVEL 1 1 53 63
6-LF VEL
110 110 10.07
OCCUMPENCES MIN (IN) MAX (IN) AVG (IN)

WAMBER AND AMEA OF COMMISSION VEFECTS VETECTED AT EACH LEVEL OF INSPECTION

SPECIAL C	
D-1EVEL 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1668 1668 31641
C-LFV5L	10000000000000000000000000000000000000
1.57 1.57 1.59 1.59	£ 1 €
A-LEVEL	INTERVALS (MKS) 51. 57. 56 50
DCCUMBENCES HIM (SO. IN) AVG (SO. IN)	INSPECTION INITIAL SHOKTEST LONGEST

NUMBER OF SPECIAL INSPECTIONS CONDUCTED:)
NUMBER OF STRUCTURAL MODIFICATIONS:
NUMBER OF STRUCTURAL MODIFICATIONS:
NUMBER OF AIRCRAFT WOOFFIED IN SERVICE: 302
ESTIMATED ELEMENT TYPE FAILURE MATE (AINS ANG. 1556-12/1ESTIMATED ELEMENT TYPE FAILURE MATE (AINS ANG. 1574SAMPLE CRK. LGT. MEANIN)
CRK. LGT. WS PROGABILITY CLOVE FIT CONSTS A B -7-2-4-16-4-5-5-0

PESTINAL STREMETH ENDLES FAIL-SAFF STREMETH ALCHAFT NO. FLT. HOUSES STA. 10. *L - *71-STRUCTURAL FAILURES FLT. HOUSE AIRCRAFT NO.

.745474316624

AVERABE FLIGHT CPACKS 1.605 1.665 , MIN .415 .455 AVERABE PRESSUME CRACKS .561 .541 .471 .471 .448

AIRCRAFT TYPE: MYGAID

MUMBER OF AIRCRAFT IN FLEETS 560

AIRCRAFT SERVICE LIFF: ABBS HOURS

-; I

SUMMARY OF STRUCTURAL ELEMENT: INGESTR-USA

NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

PEODUCTION OFFETS	a		-	•••••
SERVICE DAMANE	~	21679	49095	35347
COBRUSION	36	5911		***
FIRST CRACK	542	1 1287	1044C	DC-Fr.
	OCCUMPENCES	MAIN COMPANY	ANGIO	

MIMBER AND LEMETH OF CRACKS OFTECTED AT EACH LEVEL OF INSPLCTION

17
B-LEVEL 8A 8.10 1.75
C-LEVEL 1.15 1.27 7.27 3.23
4-15 vel.
A-LFVEL
7.00 (14) 1874 (14) 1874 (14) 1874 (14)

MUMBER AND AMEA OF CHANGED DEFECTS DETECTED AT EACH LEVEL OF TASPECTION

O-LEVEL 2.12 7.5.00 13.92	544 776 32000
\$. \$. \$. \$. \$. \$. \$. \$. \$. \$.	1066 1066
1-1-EVEL 2-23 2-53 7-59	375 375 275
A-LFVEL 6.00	MTERVALS (1945) SP 55
OCCUMPENCES MIN (50.1N) MAX (56.14) AVG (50.1N)	INSPECTION I

MAPPER OF STECIAL IMSPECTIONS COMDUCTFU: 2MAPPER OF STRUCTURAL MODIFICATIONS: 7
MAPPER OF STRUCTURAL MODIFIED IN SERVICE: 4-)
ESTIMATED ELEMENT TYPE FAILURE MATE USING AVG: 0.60e+00/Hd
ESTIMATED ELEMENT TYPE FAILURE DATE: 0.886+00/Hd.
ESTIMATED ELEMENT TYPE FAILURE DATE: 0.886+00/Hd.
SAMPLE CHK. LGT. HFANISH: 2.80
CAK. LGT. WS PROBABILITY CURVE FIT GRASS: A = -12.6759455018191

SIMUCTIMAL FAILURES
SIA, NO.
FLI. HOLNS
SIA, NO.

HESTOUAL STHEMSTH EGILS FAIL-KAFF THEMSTH ALIGHMEN THE MISSINGS

.4154812n9472

u CC

> AVERABE FLIGHT CHACKS 1.685 1.605 .nle .-1A .nnd AVERABE PRESSURE CRACKS .b61 .561 .+71 .44

TABLE 16. DEMONSTRATION RESULTS FOR WING - STRINGER, CENTER

Crack Detected	Defects Per Million SAIFE	Flight Hours MRR/SDR
Preflight Service Phase Overhaul Special Total	3.67 4.20 2.33 11.80 2.07	0.15 0.22 0.64 1.05 1.40 3.55
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.60 2.07 0.40 0.93 0.27	0.00 0.15 0.04 0.00 0.33 0.52
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.13 0.00	0.28 0.00 0.00

ALACARET TVPE: MYSHID

AINCRAFT SERVICE LIFE: 60980 HOURS MUNDER OF AIRCORFT IN FLEET: 500

SUMMARY OF STRUCTURAL ELEMENT: *MS-SIM-LSC

MUMBER AND TIME TO INITIATION OF AINCRAFT DEFECTS

	FIRST COACK	COFF0510M	SERVICE DAMASE	PRODUCTION DEFF.TS	PFCTS
OCCLPPENCES MTM(MPS) MAX (MPS) Ay6 (MPS)	905 4¤1 59697 66772	33 4478 59745 27835	1 16226 12243		
	HIGHT GAR ESTINATE	MINDER AND LEWATH OF CPACAS DETECTED AT EACH LEVEL OF 1245PECTION	D AT EACY LEVEL OF	125267104	
	V-LEVEL.	A-LEVEL	C-LEVEL	D-LEVEL	10
OCCURRENCES MIN(50) MAX(50) MAX(50)	25.57 20.26 1.09	1.44	26. 1.15 87.	2 th 4 th	<u> </u>
	AND AND AND OF COURSELS DEFECTS DETECTED AT EACH LEVEL OF INCRESSION	venslgu BEFECTS DEI	FECTED AT EACH LEVE	EL OF INSPECTION	
	ALENTE		C-LEVEL	D-LFVEL	Cor 14.
			М		,,
OCCURPENCES MIN(SG.[N]	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2	M & 1	-1-27 -1-26 17-61	
AV6(50.1M)	10 m	4.73	7. *5	•	
INSPECTION INTERVALS (MKS) ENTIAL SHORTEST	50 50 50 50 50 50 50 50	80 E E E E E E E E E E E E E E E E E E E	1000 1000 6994	1680 1680 32005	
NUMBER OF SPECIAL INSPECTING NUMBER OF STRUCTURAL "OUTER HUMBER OF ASRCAFT "OUTER STIMATED ELEMENT TYPE FASSAPLE COK. LET. MENNITY OF FASSAPLE OK. LET. MENNITY OF FASSAPLE OK. LET. MENNITY OK.	MUMBER OF SPECIAL INSPECTIONS UNINCIPED: MUMBER OF STRUCTURAL MOUIFICATIONS: 13 MUMBER OF AIRCRAFT WOIFIED IN SERVICE: 10+ ESTIMATED ELEMENT TYPE FAILURE MATE USING BYS: x=0 ESTIMATED ELEMENT TYPE FAILURE MATE USING BYS: x=0 ESTIMATED FLEWENT TYPE FAILURE SAMPLE CTX. LETS MEANIN! SAMPLE CTX. LETS MEANIN! SAMPLE CTX. LETS MEANIN! SAMPLE TYPE FAILURE SAMPL	14+ 14+ 16 879: **2er=12/44 *2lc=1:// \$skelr 570* UEV* 7: 6 = -7.649377127364	ι <u>τ</u> σ	#100 dage stands to the stands of the stands	HTARRES PRESE
SAIRCRAFT 90.	STRUCTURAL FAILURÉS FLI. MOUNS	STAL ME.	#ESINGL SIN	**************************************	

4ANDOM WUMBER SEEDS SEED(1) = 4576595;74243 SEED(2) = 11077994095936 SEED(2) = 7760277507697 SEED(4) x 2760277507697 SEED(5) x 199358155946290 SEED(6) x 2737809577687 SEED(6) x 232442449882 SEED(9) x 195025210203920 SEED(10) x 788186488389

ο,

## 0. ## 0.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
# 0. #CPH # . 045 RCPH # . 0009 IIIPE # # 0.	
# 6. #CPH # 94.3 RCPH # 9010 IINE # # 6. #CPH # 9010 IINE # # 6. # # 6. #CPH # 9010 IINE # # 6. # # 6. # # CPH # 9010 IINE # # 6. # # 6. # # CPH # 9010 IINE # # 6. # # 6. # # CPH # 9010 IINE # # 6. # # 6. # # CPH # 9010 IINE # # 6. # # 6. # # CPH # 9010 IINE # # 6. #	RCPH # . GON TIPE # 4
## 6. MCPH ##044 RCPH ##010 III-E ## 1	.043 RCPH = ,009 TIME = 46046
## 0. MCPH ## .045 RCPH ## .013 IIME ## 1	4 RCPH = .010 I
## 0. MCPH # .054 RCPH # .014 IIWE # .01	± .013 1
## 0. #CPH ## .055 RCPH ## .013 T1ME ## E	17 RCOM = .014 T
## 0. KCPH #055 KCPH = .015 IINE = .0	_ .t
Court Cour	5 KCPH = .61º T
### CPH ### CPH ### C117 TIME ### C118	= .016 T
## CPH ##	.057 KCPH = .017 TIME # 55249
Council On A/C NO. 284 AT 18600 HOUSE CHICAGE CHECKED	2 RCPH # .017 TIME =
## 00 MCP4 ## 066 RCP4 ## 013 INE ## 100 MCP4 ## 016 MCP4 ## 066 MCP4 ## 068 INFECM	I KCPH = .017 TI
### COUNTY ON A C NO	11 - 13° =
## 6005 NECPH ## 6069 NCPH ## 6029 IINF ## 6011 NCPH ## 6010 NCPH ## 6029 IINF ## 6020 NCPH ## 6020 NCPH ## 6023 IINF ## 6020 NCPH ## 6023 IINF ## 6020 NCPH ## 6023 IINF ## 6020 NCPH ## 6024 IINF ## 6020 NCPH ## 6024 IINF ## 6020 NCPH ## 6	4 47 3
### ### ### ### ### ### ### ### ### ##	KCPH = .024 1
### ### #### #### ####################	1 820° ×
COUNTY ON A/C NG 109 AT 59800 HOURS DUFING INTERNS 005 HCPH = 013 ACH = 023 TIME = 015 HCDUD ON A/C NG 134 AT 57300 HCUPS DUFING INTERNS 005 HCPH = 023 TIME = 035 HCDUD ON A/C NG 135 AT 57200 HCUPS DUFING INTERNS 005 HCPH = 023 TIME = 024 HCPH = 023 HCPH = 023 HCPH = 023 HCPH = 023 HCPH = 024 HCPH = 025 HCPH = 027 HCPH = 025 HCPH = 027 HCPH = 026 HCPH = 027 H	620° =
## \$405 MCPH ## \$415 RCPH ## \$423 TIME ## \$405 MCPH ## \$423 TIME ## \$425 MCPH ## \$4	AT 59850 HOURS DUFING
### COUNTY OF A T 57300 HOURS DUETYS INTERN ### ### ### ### ### ### ### ### ### #	# .023 TIME
## # # # # # # # # # # # # # # # # # #	L AT 5730A HOUPS OUFING INTERN
C FOUND ON A/C WG, 135 AT 57200 HOURS DURING INTERM * *855 MCPH *	.073 KCPH # .023 II-E = 65750
## .015 MCPH # .013 PCPH # .024 TIME =	AT 57200 HOURS DURING INTERM
FOUND ON A/C NG, 145 AT 56200 HOUSE OUPING INTERA 805 PCPH	* .024 Tibe =
### 1945 PCPH ###073 RCPH ###025 IlmE ### F FOUND ON A/C NO. 165 AT 5450 HOURS DUBING INTENN ###073 RCPH ###026 IlmE ### F FOUND ON A/C NO. 165 AT 5420 HOURS DUBING INTENN ###073 RCPH ###026 IlmE ### F FOUND ON A/C NO. 165 AT 5420 HOURS DUBING INTENN ###073 RCPH ###027 IlmE ### F FOUND ON A/C NO. 200 AT 5070 HOURS DIFFING INTENN ###073 RCPH ###027 IlmE ### F FOUND ON A/C NO. 200 AT 5070 HOURS DIFFING INTENN ###073 RCPH ###027 IlmE ### F FOUND ON A/C NO. 205 AT 50200 HOURS DUFFING ### F FOUND ON A/C NO. 214 AT 49300 HOURS DUFFING INTENN ### F FOUND ON A/C NO. 214 AT 49300 HOURS DUFFING INTENN ###	HOURS DUPING INTERN
<pre>C FOUND ON A/C NO. 163 AT 54400 HOURS DUPING IHTENS</pre>	± •025
## .055 WCPH # .073 KCPH # .026 IIME # . ## .065 WCPH # .073 KCPH # .026 IIME # . ## .065 WCPH # .073 KCPH # .026 IIME # . ## .065 WCPH # .073 KCPH # .027 IIME # . ## .065 WCPH # .013 KCPH # .027 IIME # . ## .065 WCPH # .013 KCPH # .027 IIME # . ## .065 WCPH # .013 KCPH # .028 IIME # . ## .065 WCPH # .013 KCPH # .028 IIME # . ## .065 WCPH # .013 KCPH # .028 IIME # . ## .065 WCPH # .013 KCPH # .028 IIME # . ## .065 WCPH # .013 KCPH # .028 IIME # . ## .065 WCPH # .031 KCPH # .028 IIME # . ## .068 WCPH # .031 KCPH # .038 IIME # . ## .068 WCPH # .038 KCPH # .038 KCPH # .038 IIME # . ## .068 WCPH # .038 KCPH # .038 KCPH # .038 IIME # . ## .068 WCPH # .038 KCPH # .038 KCPH # .038 IIME # . ## .068 WCPH # .038 KCPH # .038 KCPH # .038 IIME # . ## .068 WCPH # .038 KCPH # .038 KCPH # .038 IIME # . ## .068 WCPH # .038 KCPH # .038 KCPH # .038 IIME # . ## .068 WCPH # .038 KCPH # .038 KCPH # .038 IIME # . ## .068 WCPH # .038 KCPH # .038 KCPH # .038 KCPH #	3 AT 54400 HOURS DUPING INTERNA
FOUND ON A/C NO. 165 AT 54200 HOURS DUPING INTERN. 265 FIRE	.073 KCPH = .026 IIME = 65750
	AT 54200 HOURS DUPING INTERN
FOUND ON A/C NO. 184 AT 52300 HOURS DURING INTERN 045 RCPH = 027 TIME = FOUND ON A/C NO. 200 AT 50700 HOURS DIMENHG INTERN FOUND ON A/C NO. 200 AT 50200 HOURS DURING INTERN S DOWN S 028 TIME = FOUND ON A/C NO. 205 AT 50200 HOURS DURING INTERN FOUND ON A/C NO. 214 AT 49300 HOURS DURING INTERN	.073 RCPH = .026 114E = 65750
FOUND ON A/C NO. 200 AT 50700 MOURS DIRENG INTERM 405 MCFH = .017 TIME = 405 MCFH = .017 TIME = 405 MCFH = .013 RCPH = .017 TIME = 405 WCFH = .013 RCPH = .026 TIME = 405 WCFH = .013 RCPH = .026 TIME = 4020 ON A/C NO. 214 AT 49300 HOURS DURING INTERM	6 AT 52300 HOURS DURING INTERN
FOUND ON A/C NO. 200 AT 50700 HOURS DIFFIRE INTERN	* .027 TIME = 65750
005 MCPH # .013 RCPH # .028 TIME # EDUNG ON AZC MO.205 AT 50200 HOURS DUFING INTERNATION OF 11 ME # FOUND ON AZC NO.214 AT 49300 HOURS DUFING INTERNA	AT 50700 MOURS DIPING INTERM
FOUND ON A/C NO. 205 AT 50200 HOURS DURING INTERN	* .028 TIME
# .005 WCPM # .013 RCPM # .028 TIME # (FOUND ON A/C NO. 214 AT 49300 HOURS DUFING INTERN	AT 50200 HOURS DURING INTERN
C FOUND ON A/C NO. 214 AT 49300 HOURS DUFING INTERM	= .028 TIME = 657
	4 AT 49300 HOURS DUFING INTERN
# 3411 F20 #	.073 RCPH = .029 THE = 65750
A/C NO. 304 AT 40300 HOURS DUFING INTERN	4 AT 40300 HOURS DUFING INTERN
.030 TIME =	* .030 TIME = 65740
K FOUND ON A/C NO. 190 AT 58000 HOURS DURING INTE	AT 58000 HOURS DUPING
# .068 RCPX # .023 1185 #	R GCPH R . 023 TIME =

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HOURS DUKING INTE-4AL 6 INSPECTION

- 0.024 IINF = 78.350

HOURS DUKING INTE-VAL 6 INSPECTION

- 0.024 IINF = 78.350

- 0.024 IINF = 78.350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              = .025 Ilec = 74350
HOUPS DUFLY, INTERNAL D INSPECTION
= .021 Ile = 34650
HOURS FURING INTERNAL D INSPECTION
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HOURS DUPING INTERNAL D INSPECTION
# 4070 IING # 97754
  PUBLIME INTERNAL D INSPECTION
                                      INTERNAL & INSPECTION ME = 72050
                                                                                                                                                                                                                                                              56900 HOURS DUEN INTERNAL D INSPECTION RCPH = .022 TIME = 78350 48400 HOURS DUFING INTERNAL D INSPECTION RCPH = .024 TIME = 78350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  = .025 IIMF = 7A350
HOUMS DUSING INTERNAL D INSPECTION
= .025 IIME = 7A350
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MOUNS DOTTON

= 622 TIME = 2465g

-GURS LATING INTERNAL 3 INSPECTION

-GURS LATING = 4465f
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        96609 HOHKS DUBING INTERNAL BINSPECTION RCPH = 0022 TIME = 90956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -JUNS DUMING INTERNAL D INCRECTION
- .022 IIME = +0×50
- .627 IIME = 92575
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INTERNAL D INSPECTION IN = 97250
                                                                                                                                                                                                                       HOURS GURING INTERNAL D INSPECTION
                                                                                                                                                                                                                                                                                                                                                                                                                           = .025 TI4E = 78350
HOURS DUPING INTERMAL D INNPECTION
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MOURS DUPING INTFONAL D INCPECTION
= .020 TIME = 94659
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 = .022 TIME = 90%56
HGURS DUPING INTERNAL D INSPECTION
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                                                                                                                                                                                                                                                                                                                                  369 AT 4
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5 ACPH = .239
4 A/C NO. 418 AT .5
8 ACPH = .239
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•41 AY 3
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369 AT
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                         .0A
.00. 385 at
                                                                                                                                                                                                                    A/C NO. 244 4T
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A/C NO. 349 AT
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NO. 193
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CRACK FOUND ON
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CRACK FOUND GN
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ICPH = .605
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                                                                                                                                                                                                                       CRACK FOUND ON
CRACK FOUND O
ICPH = .88
CRACK FOUND O
                                                                                                                                                                             Z CO
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AIDCGAFT TYPE: MYBRID

MINGER OF AIRCRAFT IN FLEETS - 500

AIRCRAFT SERVICE LIFE: 60088 MOURS

STPUCTURAL ELEMENT: WM6-STR-LSC-0543

PREDICTED AVERAGE FAITGUE LIFE: 193200 HOUMS FAITBUE TEST LIFE:9999999 HOUMS

ACTUAL AVERAGE FATIGUE LIFE: 64152 HOURS

MUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

																			<u>;</u>		7664	200	31660	35465							
PRODUCTION DEFECTS	•			•		SPFCIAL		- ;	m,	*	ĸ.		SPECIAL		•	.		•	341 Jan 3	«	4	.1		.4		Paules OF FAILURE	1.35-87	7.34-17	7.55-67	3.15-03	
OUCT 109	•											#C113#							OH CO	•	و	L3	•	۰			P4	IV.	•		~
2 1					INSPECTION	D-LEVEL		ස :	120	1.62	39	1. OF INSPEC	OTEVEL		•	•	•	ċ	-	:	1196	2844	99 4 4 M	6380	r OF FAILUR						
SERVICE DAWAGE	•	ι»	•	u	MUMBEP AND LEMETH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION	C-LEVEL		16	ž.	1.33	ă.	MUMBER ANG AMER OF COPPOSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	C-LEVEL	***************************************	•		•	• 0		1000	1125	1265	1582	1562	CASEN (EMSTHS AND COMMESPINICING COMMESTIVE PROBABILITY OF FAILURE	CFK.LGT.	55 °	76.	1.17	72.	40.4
C0080510N	,•0	ส	3	•	EMETH OF CRACKS DETE	G-LEVEL		**	•55	30 ° C	1.85	OF COPPOSION OFFECTS	3-TEVEL	*********	•	٠.	•	*0		: 73	375	375	375	375	S AND COGNESPONDING	FLT. MINES	53528	W####	46746	90464 1	45639
FIRST CRACK	190	15636	59716	*5316	CHA Q38MIN	A-LEVEL	******	•	37.	1.16	¥.	ANDER AND AREA	A-LFVFL		•	:	:	;	(S#K)	¥.		1 12	Š	i s	CALCY 1 EWSTH						
	OCCUPPENCES	HIR (MES)	#41 (HPS)	AVE (HRS)				OCCURRE NCES		PAK (IN)	4A2 (In)	•			OCCUPRENCES	win(50, 14)	M&X (50.33)	146(50.1H)	INSPECTION INTERNALS (***S)	161114		1 ~	1	·w		ATRCRAFT NO.	111	74	54	vn	3

***	10-W6-1		2013011	7-36-67		A . B . B	2.55-07	6.65-88	2.6F-87	100 100 100 100 100 100 100 100 100 100	1.55-87	1.55.61	0.56.00 0.36.00	101 130 N	70-31-5	2.2F-07	1.1E-07	3.85-07	4.75-07	5.35.08	2.1F-07	PO-12-2		100 (VO)	49-16-5	1.4-14-07	9.2F-89	1.05-07	2.0F-07	1.05-07	1.16-67	7 25-04		5.65.04	5.35-07	5.45-07	HD-1944	PRI LO	181 181 6	1.27-53	1.45-07	1.45-07	1.75-97	2.3F-07	1.65-07	7.45-98	2.75-07	1.25-07	Z,96-67 6, 85-68	
;	M A M	105	114	78.	15.	.55	1.33	• 26	1.01	29.1	£) 1	· 10°		1 tr	6	1000	.59	1.47	1.54	*5*	1.07	16.	17.	0 11	15 °	78	, c. c.	٤٠.	Ť.	٠. ا	ั้ง เ	n uf	94	4	2.25	7.2.2	in t	74	700	, o •	172	15 P	7.8	2, 0	. 72	7 m •		74 · · · · ·	1.36	`*
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1.45-87	6.9F-BR	1.05-07	4.8E-98	1.45-01	2-66-87	4.6E-19	5.3F-19	2.25-17	5.4F-1A	1.2E-58	1 SE-10	1.18.83	6.96-18	1.75-07	2.75-17	2.25-07	3.15-50	2.1E-18	1-15-64	5.55-63	Z. BE-B7	10-14-C	7.7.	7.75-98	5.96-82	1.06-67	1.36-62	10 It - 11 .	Lagrange T.	3.85-67	1.06-07	2.45-67	3.85-80	2-75-07	1.55-67	1.25-17	4.45-98	1.75-67	2°36-91	1.45-07	- TE C	6 26 - 89	70-35-C	H	4.96-04	3.2E-89	N. BR-07	1.36-07
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2.1F-08 2.1F-08 4.6F-09 9.2F-09 6.5E-09 . 3.0F-07 1.3E-07 1.4F-07 6.5F-08	RESIDUAL STRENGIM EGUALS FAIL—SAFE STRENGTH AIRCRAFT NG. FLT. MOURS
28 204 204 203 272 18 18 203 203 203 203 203 203 203 203 203 203	RECIDUAL STRENGTH E AIRCRAFT NO.
A3000 69036 53000 60000 60000 60000 60000 60000 60000 60000 60000 60000 60000 60000 60000	FVICE: 0 6.13F-13/HP. HOURS
429 436 436 442 452 452 60000 453 453 60000 473 60000 473 60000 491 MARRER OF SPECIAL INSPECTIONS CONDUCTE: 1	NUMBER OF AIRCRAFT WOOFFIED IN SERVICE: ESTIMATED ELEMENT FAILURE GATE: 8.13F- STRUCTURAL FAILURES AIRCRAFT NO. FLT. HOURS

15	121893335997	9612654354488	5077392	1061514178538	162547213147	5	2204897458818	7108951868990	014524867465	202149824352841
RANDOM NUMBER	SEED(1) ×	SEED(2) *		*	'n	9	- 1	_	_	SEED(10) =

AINCRAFT TYPE: HYBRID

ş.,:

AISCRAFT SERVICE LIFE: 66666 HOURS MUMBER OF AIRCRAFT IN FLEET:

STRUCTURAL ELEMENT: #MG-5TR-LSC-0807

PREDICTED AVERAGE FATIGUE LIFE: 161460 MOURS FATIGUE TEST LIFE: 123898 MOURS

B4458 MOURS ACTUAL AVEPAGE FATIGUE LIFE!

MINGER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

PRODUCTION DEFECTS
SERVICE DAWAGE 1 441 481 481
CCBROSION 2 42262 45344 43803
FIRST CRACK 46 481 59822 46510
OCCURPENCES HIN (HPS) MAX (HRS) AVE (HRS)

	SPECIAL Secondary
F INSPECTION	D-LEVEL 1 2-1* 2-1* 2-1*
TECTED AT EACH LEVEL O	17 1.00 1.25 2.14 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1
LENGTH OF CHACKS DET	A-LEVEL 1.00 1.00 1.00
MANABER AND	17 17 17 1.38 1.02
	OCCURRENCES MIN(IN) MIN(IN) AVG(IN)

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C110M			MOD NG	.	3 .3	കക്ഷ	600)
HIEVEL OF INSPE	D-LEVEL	3 4 4 6 4 4 6		1605	0.00 A R	2150 22150 88151	19984 19984 23730 29563
CTS DETECTED AT EAC	C-LEVEL	* • • • • • • •		1000	1265	1862	26116 2520 3520 43520
NUMBER AND AFEA OF COMPOSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION	A-LEVEL	2.87 2.83 2.83		ינו היי	ים נון ה שלא מי	375	27 w 27 m 27 m 27 m
BRUMBER AND AFE	A-LEVEL	C	INTERVALS (MRS)	2 ((f)	စ္ မ (၈ ၈ ရ	ာလမ ဂေါဂါ ၏	င္လာလ (ဟာ ဟာ ဟေး
		OCCUMPENCES MIN (SG.IN) MAX (SG.IN) AME (SG.IN)	_	IMILINE	~ m ·	ar kn vo	7 8 6 7 10

3.35-07	2.06-47	1.1E-87	6.55-98	PO LINE OF	/#= 30 °T	101 LB 0	1.27-16	2.66-03	2.0E-07	3.95-67	3, ef-02	6.2F-8*	6.65-62	2.1F-67	6 12 N	u marina de		TO LAW .	2-25-87	10-36-E	4.05-98	7. FF-84	3.95-62	1.45-07		7.45.61	1.1E-67	6.7E-88		2.07-62	10-15-1 10-15-1	7 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	1.000	100 m	4.95-84	7.65-89	1.75-85	10-10-3		P 14 4 1	171 100 M	1.55		2.75-07	1.65-07	4,9F-9A	2. RF-8T	10.1F-07	* P 1 4 2 * 0
. 1,21	F.	.61	24.	2.16		77 .	2,7	91.	1.55	2,11	12.	£ .	de i	(A) (A)	F	62.			1.17	1.38	.27		•20			27.57	47.	.27	£.	411	m v	00°		1.54	.33	£.	25.	2101		e . f	15.		- U	1.22	Į.	. 23	11	¥.;	1.96
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217		•15	2.25-01
F 000	66838	2.12	1.25-06
	90209	1.63	4.1E-07
315	60000	4.23	3.65-65
Č.	49234		2.35-01
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A3.5	00000	-17	2.85-59
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į	30000	72-1	2.45-87
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454	69569	1.97	2.55-07
8 P	6565	1.44	2.8F-87
463	65000	22*	3.25-9.
614	66086	.67	1.15-07
294	65663	.27	4.1F-0A
194	96039	555.	1,56-87
164	30304	1.17	2.45-97
664	~	Ec.	4,5F-64
NATIONAL OF STRUCTURE INSCRICTIONS CONDUCTIONS STRUCTURES AND STRUCTURES ADDITIONAL STRUCTURES STRU	DANS COMPONENTS OF		
FINAL ACTUAL AVERAGE MUDIF	MUDIFIED FATIGUE LIFE: SAAKE HOUMS	u.	
NUMBER OF AIRCRAFT RODIFIED IN SEPVICE: ENTIMETED FLIMETER FAILURE RATE: E.PRE-13/AR	0 14 SEPANCE: 5 FEB. 5. VARTH WARD		
STRUCTURAL FA	FAILURES	PESTOUAL STABASTH E	PESTOUAL STRENGTH FOURLS FAIL-SAFE STRENGTH
AIRCRAFT NG.	FLT + POST	AIRCHAFT NG.	FLT. NOID.
***************	***************************************		

AIRCRAFI TYPE: MYCHID

5866
AIPCRAFT SERVICE LIFE:
305
MUMBER OF AIPCOAFT IN FLEET:
MUMBER OF A

MM6-51R-USC	
ELENENT:	
STRUCTURAL	
B	
SUMMARY	

DEFECTS
ATRCRAFT
ğ
INITIATION
5
3111
£ .
₹.
PAUMBER
1

SERVICE DAMAGE PHODUCTION DEFECTS				
COP405104	 6 •	2723	30000	27753
FIRST CPACE	 101	7384	59463	47793
	OCCURRENCES	#IR(#RS]	HAX (HPS)	AVG(NOS)

NUMBER AND LEMBTH OF CHACKS DETECTED AT EACH LEVEL OF INSPECTION

SPECIAL		11	.01	2 9	14.0
D-LEVEL	******	63	•31	6.36	2,39
C-LEVEL	***************************************	ús.	•79	4.62	2.61
S-I FVEL		92	1.15	9.18	2.77
A-LEVEL	*******	¢	•0	•	
		OCCUPRENCES	MIN(IK)	HAX (IN)	AVE (IN)

MUMBER AND AHEA OF COPROSION DEFECTS DETECTED AT EACH LIVEL OF INSPECTION

	A-LEVEL	#-FF VEL	CHEVEL	D-LEVEL	SPECIAL
		***************************************	******	***************************************	
DCCLHPENCES	c	13	m	_	•
HIM(SO.IM)	.•	2.55	21	1.21	11.56
MAX (SQ.IN)	•	24.43	5.01	27.10	27.95
EVG(50.1N)	•	6.47	5.91	11.67	30,04
INSPECTION INTERVALS (*#5)	1[5(**5)				
INITIAL	25	375	1000	2044	
SHORTEST	63	375	1000	1650	
LONGEST	es m	375	5000	32606	
NUMBER OF SPECIAL	NAMBER OF SPECIAL INSPECTIONS CONDUCTED: NUMBER OF STRUCTURAL MODIFICATIONS: 16	17E6: 21			
ESTINATED ELEMENT	I MODIFIED IN SEMV TYPE FALLIME WATE	MANDER OF AIRCREFT WOOIFIED IN SEMVICE: 6.30E-06/3-	11/30		
ESTIMATED ELEMENT SAMPLE CRK, LGT. ' CRK, LGT. VS PROBL	ESTINATED ELEMENT TYPE FAILURE FATE: 0.06c+00/M+- Sample CRK, LGT, Weamin) 2.3c Sample STO, CRK_ LGT, VS PROBABILITY CURVE FIT CO-ST: 4 = -13+	ESTIMATED ELEMENT TYPE FAILURE FATE: 0.36c+00/Mm. Sample CRK, LGT. Weam(IN) 2.32 RMs_ LGT. VS PROBABILITY CUPVE FIT CO+ST: 4 = -13+675K25818191	[V. 1.435 125818191 x ±		

4.4 1,405 AVERAGE PRESSURE CRACKS 1.465 AVERAGE PRESSURE CRACKS .551

RESIDUAL STRENSTH EQUALS FAIL—SAFF STRENST— AIRCRAFT NC. -1. NOUSS STA. 17.

STE. VO.

STRUCTURAL FAILUPES FLI. MOUKS

MIRCRAFT WG.

TABLE 17. DEMONSTRATION RESULTS FOR WING - STRINGER, FORWARD

Crack Detected	Defects Per Million SAIFE	Flight Hours MRR/SDR
Preflight Service Phase Overhaul Special Total	0.13 1.00 0.80 0.87 0.00 2.80	0.21 0.71 1.04 1.69 1.04 4.69
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.53 1.00 0.40 0.87 0.00 2.80	0.00 0.31 0.00 0.10 0.00 0.41
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.03 0.00	0.07 0.00 0.02

AIRCHAFT TYPE: HYBRID

60000 HOURS
AINCRAFT SERVICE LIFE:
205
NUMBER OF AIRCRAFT IN FLEET:

SUMMARY OF STRUCTUPAL ELEMENT: BNG-ST4-LSF NUMBER AND TIME TO INITIATION OF ATRCAFT DEFECTS

PRODUCTION DEFECTS	•
SERVICE DAMAGE	2 45 54 54 54 55 65 65
COPROSION	36 679 58938 31003
FIRST CRACK	198 45%6 598&0 46095
	OCCUMRENCES MIN (MRS) MAX (MRS) AV6 (MRS)

MYMBER AND LEMETH OF CHACKS DETECTED AT EACH LEVEL OF INSPECTION

			1000		CBECT
	A-LEVEL	4-LCVCL	C-LEVEL	77.77	74.7
		,			
OCCURRENCES	~	o	i n	~	c
MIN(IN)	. e. e. 1	7.4.	•56	i .6 .	•
MAX(IM)	1.08	16.	11.	¥9•	¢:
AVG(IN)	56* ·	89*	-62	.6.	ċ

MUMBER AND ALES OF CHAPOSION JEFECTS DETENTED AT EACH LEVEL OF INSPECTION

	A-LEVEL	3-LF VEL	C-LEVEL	D-LEVEL	SPFCIAL
OCCURRENCES	VI.	v	ı,	rd	0
MIN(SO.IN)	5.04	2.20	3.23	6.53	٠.
MEX (SQ. IN)	16.96	11.73	14.25	6.53	e•
1~1.0215VA	5,32	5.47	7.56	6.53	e*
INSPECTION	INSPECTION INTERVALS (MRS)	24.6			
SALI IAL CADRTEST	⊃ op n v∩	275	000	1600	
LOWGEST	, so	375	6667	37000	
and and and and	THE PERSON THEORY TO SELECTIONS OF SECURITIES.	¢			

NUMBER OF SPECIAL INSPECTIONS CONDUCTED: A NUMBER OF STRUCTURAL MODIFICATIONS: 4
NUMBER OF AIRCRAFT MODIFICED IN SERVICE: A NUMBER OF STRUCTURE FAILURE MATE OSTAN ARE STIMATED ELEMENT TYPE FAILURE MATE: 4.67c-12/H=.

SANPLE CRR. LGT. MEANIN) .39
CRR. LGT. VS PROBABILITY CURVE FIT CONST: A = -7.cy0173103476

RESIDUAL STRENGTH ENDALS FAIL-SAFE STRENGTH AIRCRAFT NO. FLT. MOURS STA. NO. STÁ. MO. STRUCTURAL FAILURES FLT. MOURS AIRCRAFT NO.

- = 1.49-121431414

AVERAGE FLIGHT CRACKS 1.605 1.605 .618 .818 .449 AVERAGE PRESSURE CRACKS .561 .561 .47] .471 .446 AIMCRAFT TYPE: MYBRID

AIRCRAFT SERVICE LIFE: MUMBER OF AIRCRAFT IN FLEET: 500

68888 HOURS

SUMMARY OF STRUCTURAL ELEMENT: #MG-STR-USF

NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

PRODUCTION DEFECTS
SERVICE DAMA6F 9450 43039 25244
CURPSION 37 161 161 59102 29622
FIRST CRACK 183 183 184 184 185 59597 33920
OCCURRENCES MIN (MRS) MAX (MRS) AVE (MRS)

NUMBER AND LENGTH OF CRACKS DETECTED AT EACH LEVEL OF INSPECTION

SPECIAL C
12 12 189 1.89
C-LEVEL 7 3,47 1,44
PALEVEL 6 6 3 0 0 5 1 0 4 4
A-LFVEL 0 0 0
GCCURRENCES MIN (IN) MAX (IN) AVG (IN)

MUMBER AND APEA OF CORROSION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

Jac 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2			RESIDUAL STRENGTH EUJALS FAIL-SAFE STPENGTH THERAFT WO. THERAFT WO.
P-LEVEL 12 3,78 57.12 18.54	0002E 3891 98*9	.4154812n9472	RESIDUAL STRENGTH E
C-LEVEL 5,44 5,44 5,44	1000 1007 6667	CE+00/HR OEv479 75825618191	* 41
6-LEVEL 178 16-22 7-49	375 315 315	COMDUCTED: 0 TIONS: 2 E KATE: 663 E KATE: 0.00E+00. E KATE: 0.00E+00. E KATE: 0.00E+00. 95 E FIT CONST: A = -13.075825.	DES STA. NO.
A-LEVEL 6	INSPECTION INTERVALS (HRS) 50 SHORTEST 50 50 LONGEST 50	MAMBER OF SPECIAL INSPECTIONS COMDUCTED: 0 MAMBER OF STRUCTURAL MUDIFICATIONS: 2 MUMBER OF ARCRAFT MODIFICATIONS: 2 ESTIMATED ELEMENT TYPE FAILURE KATE USING AVG: 9.00E+00/MR ESTIMATED ELEMENT TYPE FAILURE KATE: 0.00E+00/Mix. ESTIMATED ELEMENT TYPE FAILURE KATE: 0.00E+00/Mix. CARPLE CRK. L6T. MEAN(IN) 95 CRK. L6T. VS PARBABILITY CURVE FIT CONST: A = -13.607S825818191	STRUCTURAL FAILUBES NO. FLT. MOLKS
OCCURRENCES MIN (52, IN) MAX (59, IN) AVÉ (50, IN)	INSPECTION INITIAL SHORTEST LONGEST	NUMBER OF NUMBER OF ESTIMATED ESTIMATED SAMPLE CRI	AIRCRAFT WO.

.A18 .649 AVERAGE FLIGHT CPACKS 1.605 1.605 .618 AVERAGE PRESSURE CRACKS .551 .561 .471

()

AIRCRAFT NO.

142

TABLE 18. DEMONSTRATION RESULTS FOR WING - CENTER SECTION STRINGER, AFT (WSC-STR-AFT & WSC-STS-AFT)

Crack Detected	Defects Per Million SAIFE (*)	Flight Hours MRR/SDR
CLACK Decected		
Preflight	0.00 (0.00) 0.00 (0.00)	0.00 0.00
Service		0.00
Phase Overhaul	0.27 (0.27)	
Special	0.27 (0.27)	0.06
Total	1.07 (1.07)	0.12
Corrosion Detected Preflight Service Phase Overhaul Special Total	0.00 (0.00) 0.00 (0.00) 0.27 (0.07) 0.26 (0.13) 0.13 (0.13) 0.66 (0.33)	0.03 0.03 0.00
Fail-Safe Damage Failures Service Damage Production Defects	0.00 (0.00) 0.00 (0.00) 0.00 (0.00) 0.00 (0.00)	Colorina may and

^(*) WSC-STS-AFT only

AILCREF TYPE: HYSKID

AINCRAFT SERVICE LIFE: 60060 HOURS

MUMBER OF AIRCRAFT IN SUFET: 590

SUMMARY OF STPUCTURAL ELEMENT: MSC-STR-LSA NUMBEY AND TIME TO INITIATION OF AIRCRAFT DEFECTS

	Flast CRACK	CORROSION	SERVICE DAMAGE	PRODUCTION DEFECTS	
	4	1.5	0	•	
OCCUMENTANCES	32675	4736	A		
MIN (MACS)	51397	55272	a '		
AVE (HPS)	41725	33307	p		
	I GAA STREET	ENGTH OF CAACKS D	NIMMEP AND LEWGTH OF CARCKS DETECTED AT EACH LEVEL OF INSPECTION	OF INSPECTION	
		EVEL	C-LEYEL		
				3	
OCCURRENCES	6	•			
HIM(IM)	•0	e e			
MAX (IM)	• •	• •	•	•6	
		A CORDOCTOM DEFE	MOLECULE OF COMPACTOR DEFECTS DETECTED AT EACY LEVEL OF INSPECTION	WEL OF INSPECTION	
	AUMBER AND AKEN	JE COMPUSION DES EN			
	A-I EVEL	B-LEVEL	C-LEVEL	D-LEVEL SPECIAL	
DCCURRENCES	0	3	m m		
MIN(SO.IN)	• 0	ດ້າ	14.45	22.14	
MAX (SQ.IN)	. .	• •	14.33		
AND COS INC	,				
INSPECTION INTERVALSTHES)	PVALSTHRS	375	1000	3049	
JALL LAL 2009TEST	2 CT 6	3 75 3 7 5	1000 1000	32886	
COMSEST	ñ				
	SPECIAL IMSPECTIONS COMDUCTED:	CTED: 0			
NUMBER OF ATRCR	NUMBER OF AIRCRAFT WOOLFD IN SERVICE: NUMBER OF AIRCRAFT WOOLFD IN SERVICE: 0 3.236-14/46	ICE: C 3.23	E-14/44		
ESTIMATED ELEME	ESTIMATED ELEMENT TYPE FAILURE WATE:	3,316-14/42	747		
SAMPLE CRK. LGT. MERNIN) CRK. LGT. WS PROBABILITY CA	SAMPLE CRK. LGT. MEAN(IN) .56 SAMPLE CRK. LGT. WS MROBABILITY CURVE FIT CONST: A =	SAMPLE VST: A =	57984 6	.653727396484	
5	CTDHCTHBAL FATEURES		4ES19UA	VESIDUAL STRENGTH FOURLS FAIL-SAFE STRENGTH	r g
ATHCRAFT NO.	FLT. HOURS	STE. NO.	A 17CMAT 6 BO.		

AVERAGE FLIGHT CRACKS 1.605 1.605 .518 .518 .648 AVERAGE PRESSURE CRACKS .561 .551 .471 .448

AIRCRAFT TYPE: MYBRID

1

AIRCAAFT SERVICE LIFE: 60000 HAURS MUMBER OF AIRCRAFT IN FLEET:

SUPMARY OF STRUCTURAL ELEMENT: 25C-5T5-LSA

MUNDED AND TIME TO INITIATION OF AIRCRAFY DEFECTS

eccuerEDICES	FIRST CLAC.	15 15	SERVICE DAVAGE		PLODUCTION DEFECTS
HJM (1485) HAX (1485) Ayg (1485)	856 59885 45563	54132 24578	e u	•	•
	BI GAR ASSMA	46TH OF CHACKS DET	MMPSEK AND LEWSTA OF CHACKS DETECTED AT EACH LEVEL OF INSPECTION	L OF INSPECTION	
	A-LEVEL	TEAST	CHEVEL	D-LEVEL	SPECIAL
			•	* ;	• ;
OCCURRENCES	•	٠,	7 ·	0. c	2.67
4] F (] F () 44.7 (] F () 4.2 () T ()			1.00 M	***	4. 1
	A TAMES OF THE OF	Cosposion Defect	S DETECTED AT EACH	AMERIAND AND ANGLOS COGRECTED OF EACT LEVEL OF IMPRECTION	
	The state of the s	330	CHEVEL	D-LEVEL	•
	A-LEVEL	170 170			
				8	2 (
OCCURRENCES	o		3.05	12.20	A
EIN(SO.IM)	• 6	6	3.05	21042	\$5°#2
MAX (50.14) AVE (50.14)		•	3.65	D1 • 1	•
CAMP CANDERS AND ACTION OF THE CAMPS	(5)86(2)		,	0874	
THITTE		٠٢٠		100	
SHORTEST	න ද ව ද	2 te	0 0 0 0 1 0 1 1 1	36528	
MUMBER OF SPECIAL INSPECTI MUMBER OF STRUTURAL MODIFIE MUMBER OF SIRCRAFT MODIFIE ESTIMATED ELEMENT TYPE FAI ESTIMATED ELEMENT TYPE FAI SAMPLE CORR. LET MEAN(IN) FAR. YS PROBABILITY FAR. 18T. YS PROBABILITY	MUMBER OF SPECIAL INSPECTIONS CONDUCTED: MUMBER OF STRUCTURAL MODIFICATIONS: ESTIMATED ELEMENT TYPE FAILURE NATE HASTO AVE: ESTIMATED ELEMENT TYPE FAILURE RATE: 104RE-12/FL- ESTIMATED ELEMENT TYPE FAILURE RATER TYPE TYPE TYPE TYPE TYPE TYPE TYPE TYPE	FEC: 35 18710 240: 10-35-12/ 10-88E-12/ric 2057: 8 = -7593-055	• 655 - 659	essages	
STRI	STRUCTURAL FAILUMES FLI. HCJFS	STA. MO.	AIGCK	RESIDUAL STALMSTH EWUALS AIGCRAFT NO.	RESIDUAL STAFMOTH ENUALS FAIL-SAFF STEWETH LIGGRAFT NO. FLT. MOUNS TAL. FO.

AVERAGE FLIGHT CACKS 1.605 1.605 ."!E ."I? .044 AVERAGE PRESSUPE CRACKS .561 .561 .471 .471 .448

TABLE 19. DEMONSTRATION RESULTS FOR WING - CENTER SECTION STRINGER, CENTER

Crack Detected	Defects Fer Million SAIFE	Flight Hours MRR/SDR
Preflight Service Phase Overhaul Special Total	0.00 0.00 0.00 0.00 0.00	0.04 0.04 0.04 0.40 0.18 0.70
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.00 0.00 0.00 0.67 0.00 0.67	0.08 0.30 0.00 0.93 0.46
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.00 0.00	0.17 0.00 0.04

AIRCAAFT TYPE: MYBRID

14日时,以上,是各个时间,也是一个时间,也是一个时间,是一个时间,是一个时间,这个时间,这个时间,也是一个时间,也是一个时间,也是一个时间,也是一个时间,也是 1915年,1916年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1918年,1

NUMBER OF AIRCRAFT IN FLEET: 500 AIRCRAFT SERVICE LIFE:

48888 HOUKY

SUMMARY OF STRUCTURAL ELEMENT: NSC-STR-LSC

MUMBER AND TIME TO INITIATION OF AIRCPAFT DEFECTS

	FIRST CRACK	W0150se00	SEAVICE DAMAGE	PRODUCTION DEFECTS
	***************************************	***********	*************	***************************************
OCCURRENCES	21	33	U	•
REM CHESS	11816	£670	3	
KLK (HPS)	55803	58742	•	
AVS (IMPS)	41561	32778	a	

MUMBER AND LEMBTH OF CALCHS DETECTED AT EACH LEVEL OF INSPECTION

PEDES	•	•	:	¢
D-LEVEL	ŭ	•0	•	• 0
C-LEVEL	•	• •	• 0	• 3
e-tevel.	n	٠,	• 0	°
A-LEVEL	8	•	•	3.
	OCCURRENCES	(N1) N19	MAX (IN)	EM1 9A5

MUMBER AND AMER OF CORRECTION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

OCCUMPENCES MIN (40. [M) MAX (50. [M) AVE (50. [M)	A-LEVEL	B-LEVEL	C-EVEL	16 5.37 21.14 11.66	SPECIAL O
=	NTERVALS (144-5) 55 50 50	375 275 375	17.90 17.90 6667 6667	4 4 (i) 4 4 (v) 4 6 8 5 7 7	

NUMBER OF SPECIAL INSPECTIONS CONCUCTED: 0
NUMBER OF STRETYUPAL MODIFICATIONS: 0
NUMBER OF AIRCRAFT MODIFIED IN SERVICE: r
ESTIMATED ELEMENT TYPE FAILUME WATE USING AND 2.905-14/44
ESTIMATED ELEMENT TYPE FAILUME WATE: 2.602-14/44
SAMPLE CRK. LGT. WEARIEN
CRK. LGT. VS PROBABILITY CURVE FIT CCAST: A x -6.391595819214 B x

CINCIDE STUDE C

FE STAFMETA	=Ti	*******
TH ENDALS FAIL-SA	AIRCRAFT NO. FLT. HOUSE STE. NO.	*******
PESIDUAL STREES	AIRCHAFT NC.	*********
	STA. MO.	*******
NCTURAL FAILUPES	FLT, MOUPS	**********
571	AIRCRAFT MO.	

AMERAGE FILGAT CRACKS 1,605 1,605 ,-14 ,41 ,647 ,444 AVERAGE PRESSURE CRACKS ,561 ,561 ,471 ,471 ,444

TABLE 20. DEMONSTRATION RESULTS FOR WING - CENTER SECTION STRINGER, FORWARD

Crack Detected	Defects Per Million Flight Hours SAIFE MRR/SDR	i
Preflight Service Phase Overhaul Special Total	0.00 0.00 0.00 0.25 0.00 0.45 0.00 0.14 0.00 2.76 0.00 3.60	
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.00 0.00 0.00 0.03 0.33 0.00 0.73 0.05 0.00 0.03 1.06 0.11	
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.11 0.00 0.00 0.00 0.00 0.00	

AINCREFT TYPE: NYWID

MUMBER OF AIRCRAFT IN FLEET: 500

AIRCRAFT SERVICE LIFE: 50000 HOURS

SUMMARY OF STRUCTURAL ELEMENT: MSC-STR-LSF

NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

PRODUCTION DEFECTS
SEWICE DANGE
CORROCION 32 32 122c 57376 76702
FIRST CSACA 7 27471 57673 45333
OCCURRENCES Minimus; Max(HRS) Avg(HRS)

MUMBER AND LENGTH OF CHACKS DETECTED AT EACH LEVEL OF INSPECTION

SPECIAL D
D-LEVEL 0.000
C-LEVEL C. e
C C C C C C C C C C C C C C C C C C C
O O O O
OCCUMPENCES MIN (IN) MAX (IN) AVG (EH)

MUMBER AND APEA OF COGROCION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

OCCURPENCES MIN-356-IN) MAX-(50-IN) AVG-(50-IN)	P-LEVEL 60.00	intevel	C-LEVEL 	D-LEVEL 11 2,53 39,54 17,65	SPECTAL G
IMSPECTION INTERVALSINGS) INITIAL SHOPTEST LONGEST	rk <u>i s</u> (1485) 50 50 50	a75 275 275	1000 1985 6667	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$,
NUMBER OF SPECIAL	NUMBER OF SPECIAL INSPECTIONS COMBUCTED: NUMBER OF STRUCTURAL MOCIFICATIONS: 2	ن			

MUMBER OF STRUCTURAL MCDIFICATIONS:

WUMBER OF AIRCRAFT WORIFIED IN SERVICE:

ESTIMATED ELEMENT TYPE FAILURE HATE "SING AVG: 5.672—15/44

ESTIMATED ELEMENT TYPE FAILURE HATE: 4.372—15/44

SAMPLE CRK. LGT. WEANIN: 335

CRK. LGT. VS PROBABILITY CURVE FIT COLST: A = -6.723512335132

C TOUR TOUR A STANDER

1,713'66323536

FAIL-SAFF STRENGTH OURS CTA. NO.	******
RESILUAL STRENGTH EDUALS FAIL—SAFF STRENGTH	***************************************
ï	•
ES STA. NO.	
STRUCTURAL FAILURES FLI. MOUPS	
AIRCRAFT NO.	

AVERAGE FLIGHT CRACKS 1.605 1.605 ...h .416 .0-9 AVERAGE PRESSURE CRACKS .561 .551 ...7; .471 .445

TABLE 21. DEMONSTRATION RESULTS FOR WING - CENTER SECTION SPANWISE BEAM, AFT (WSC-SWB-AFT & WSC-SWS-AFT)

Crack Detected	Defects Per Million Flight Nou SAIFE (*) MRR/SDR	rs
Preflight Service Phase Overhaul Special Total	0.00 (0.00) 0.04 0.00 (0.00) 0.12 0.20 (0.20) 0.04 1.93 (1.93) 0.28 0.13 (0.13) 0.12 2.26 (2.26) 0.60	
Corrosion Detected		
Preflight Service Phase Overhaul Special Total	0.00 (0.00) 0.00 0.00 (0.00) 0.04 0.20 (0.00) 0.00 0.13 (0.13) 0.04 0.00 (0.00) 0.09 0.33 (0.13) 0.17	
Fail-Safe Damage Failures Service Damage Production Defects	0.00 (0.00) 0.00 0.00 (0.00) 0.07 (0.07) 0.00 0.00 (0.00) 0.00	

^(*) WSC-SWS-AFT only

AIRCHAFT TYPE: PTHRID

AIRCAAFT SEAVICE LIFE: 60000 HOUPS
500
MUMGER OF AIRCRAFT IN FLFETS

SUMMENT OF STRUCTURAL ELEMENT: WSC-SWE-AFT

MUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

77515 7589 27715 5-563 46126 32540	OCCURRENCES 7 NIN (HPS) 27515 NAX (HRS) 46126 AAX (HRS) 46126 AY6 (HPS) 4311 28373 30048	77515 7789 27515 6.4563 46126 32597 43111 28373 30048		FIRST CRACK	COFF0510N	SEXVICE DAPAGE	PRODUCTION DEFECTS
77515 7589 27515 5-563 46126 32590 4-311 28177 30648	7 7585 27515 5.4563 46126 32546 43111 28373 30048	7 7 7 7 7 7 7 7 8 5 7 5 15 15 15 15 15 15 15 15 15 15 15 15 1			***********	*************	
7515 759 27515 5-563 66126 3254, 4311 2873 3064	77515 7580 27515 5-563 46126 32590 5311 28375 30048	77515 7580 27515 5-563 46126 32540 43111 28373 30048	OC: JARENCES	٢	,	2	0
6-563 66126 32540 	5-553 46126 32597 4311 28373 30048	5-5-5 46126 325-6 4311 28373 30048	MIN(HPS)	27515	7589	27515	10000
4-2111 2827-1 3084-x	+3111 28375 30048	A31]] ZR375 300&8	MAX (MRS)	5.553	46126	32549	*****
			AVG(NPS)	43111	28373	30068	

MUMBER AND LEKITH OF CHACKS DETECTED AT EACH LEVEL OF INCHECTION

Special	u	n	¢	3.
D-LEVEL	د	• 33	•	£1.
C-LEVEL	دغ	.	•	• 0
3-LEVEL	a	.,	٠,	3.
A-LEVEL	e:	ů.	•	• •
	OCCURRENCES	KIN(IN)	MAX (IN)	·WAS(IM)

NUMBER AND AFEA OF CORROCION DEFECTS DETECTED AT EACH LEVEL OF INSPECTION

Sets 13A31-6	e, , , , , , , , , , , , , , , , , , ,		• • • • • • • • • • • • • • • • • • • •	1000		36.18
A-LEVEL	O C	• •	n. MTFOXA: C(HAC)	#W	ij	ŗ
	CCURRENCES	(AX (SD. 14)	NVELSO.IN) INCPETTON INT		MORTEST	DMSFST

RESIDUAL STERGIN EGUALS FAIL-CAFE STORNGIN FINCAFT NG. STA. NOCPS STAR MILE STRUCTURAL FAILURES FLT. MOUFS AIRCRAFT NO.

8 = 1.-79117:9526e

41-. 47-. . 14 1,6'5 AVERAGE FLIGHT CFACKS 1.405 AVERAGE PRESSURE CRACKS .551

SINCHAFF TYPES HYMMIG

6886 mount
JPCARFT SERVICE LIFE:
•
ET: 527
r It fle
MANAGER OF AIRCRAFT IN FLEET:
8
es years of

SUMMARY OF STRUCTURAL FLEMENT: MSC-SMS-AFT MAMBER AND TIVE TO INITIATION OF AIRCRAFT DEFECTS.

PROJUCTION DEFECTS	-	
SEPVICE DAMANE	91.46 13478 11393	
W0150#:02	5 6656 68786 58780,	
Floct Cator	1^1 9196 59514 45771	
	OCCURRENCES MIN (~FS) MAX (P4S) AV6 (~PS)	

WINNER AND LENGTH OF CHACKS OFTECTED AT EACH LIVEL OF INSPECTION

SPECIAL	N	1017	1.5.	1.35
D-LEVEL	ć.	.25	25.5	1.99
C-LEVEL	М	.7.5	2.6:	1,59~
ר-ובינו 	c	• 0	9.	12°
A-LEVEL	e.		•	••
	OCCURRENCES	"In [H]	MAA (1 M)	AVG(IN)

SUMBER AND AFFE OF COOLDSTON WEFECTS VETECTED AT EACH LEVEL OF INSECTION

C-LEVEL G-LEVEL		• • • • • • • • • • • • • • • • • • • •	• • •	• 0	1960	1990	3-2-
A-LFVEL	ø	បំ	• 0	• 5	C į.	v J	2.5

-FORTH CONTRACT FUGGES FAIL-SAFE STORMSTE - LUCTERT CO. 1740 FO. 1 STRUCTURAL FAILURES
FULL HOUSE A THORAFT NO.

いいれき しゃ とうきくきき

n i

AVERAGE FLIGHT CPACKS 1.605 1.4 55+7 seine

TABLE 22. DEMONSTRATION RESULTS FOR WING - CENTER SECTION SPANNISE BEAM, CENTER

Crack Detected	Defects Per Million Flight Hou SAIFE MRR/SDR	ırs
Preflight	0.00 0.00	
Service	0.00 0.02	
Phase	0.00 0.02	
Overhaul	0.00 0.19	
Special	0.00 0.00	
Total	0.00 0.23	
Corrosion Detected		
Preflight	0.00 0.00	
Service	0.00 0.00	
Phase	0.00 0.09	
Overhaul	0.13 0.00	
Special	0.00 0.00	
Total	0.13 0.09	
Fail-Safe Damage	0.00 0.00	
Failures	0.00	
Service Damage	0.00 0.00	
Production Defects	0.00 0.00	

ATHCHAFT TYPE: HYBRID

WOMBFR OF AIRCPAFT IN FLEET: ET AIRCRI

AIRCRAFT SERVICE LIFE: 60000 MOUKS

SURMARY OF STRUCTURAL ELEMENT: MSC-SMM-CEM

NUMBER AND TIME TO IMITIATION OF AIRCRAFT DEFECTS

PRODUCTION DEFECTS	•	• • • • • • • • • • • • • • • • • • • •	******	***
SEMPLE DAMASE	•	556*	18429	19414
CORPOSION	.	1620e	57314	6499t
FIRST CRACK	113	4695	58756	33115
	OCCUPPENCES	MIN(HRS)	MEX (HPS)	AVE (MRS)

MUMBER AND LEWGTH OF CHACKS DETECTED AT EACH LEVEL OF INSPECTION

SPECIAL	G	e e	,	.0
P-LEVEL	0	•6	ņ	•
C-LEVEL	c	.,	•	•
LFVEL	IJ	¢	٦.	·.
A-LEVEL	c	<u>.</u>	•	•
	OCCURPFINCES	WIN(IN)	HEX (IN)	AVE(IN)

NUMBER AND AHEA OF COMPOSION DEFECTS "FFECTED AT EACH LEVEL OF INSPECTION

	A-LFVEL	A-LFVEL	C-LEVEL	DALEVEL	SPFCIAL

OCCURRENCES	v	ರ	c	N	ta
MIN(SO.1N)	•0	.•	•	2.94	
MAX (SO. IN)	• د	. •	. د	M 4 M	. 6
AYG(SQ.IN)	• n	ς.*	* 13	3.1r	ŗ.
INSPECTION INTEPRALS(HRS)	5 (-1845)				
INITIAL	e d'	27.5	1000	4	
SHORTEST	5.5	375	1000	4690	
LOMEEST	e,	cle	5567	32000	

NUMBER OF SPECIAL INSPECTIONS CONDUCTED:
NUMBER OF STRUCTURAL WODIFICATIONS:
NUMBER OF AIRCRAFT MODIFIED IN SERVICE:
ESTIMATED ELEMENT TYPE FAILURE HATE USING AVG: 1.542-13/-2
ESTIMATED FLEMENT TYPE FAILURE HATE: 1.342-13/+2
ESTIMATED FLEMENT TYPE FAILURE HATE: 1.342-13/+2
SAMPLE CRY. LGT. MEANIEP:
CRK. LGT. VS PROBABILITY CURVE FIT COMSI: A = -7.105060249917

MESIGNAL SIMENGTH E-UALS FAIL-SAFE STORNGTH LIRCHIAT NO. + LIRCHIA MONES STA. 40. STRUCTIPAL FAILURES FLT. HOUPS AIRCRAFT NO.

- 1.165770846146

AVERAGE F_IGHT CRACKS 1.605 1.605 .clb .-12
AVERAGE PRESSURE CRACKS .561 .561 .471 .445

TABLE 23. DEMONSTRATION RESULTS FOR WING - CENTER SECTION - SPANWISE BEAM, FORWARD

Crack Detected	Defects Per Million SAIFE	Flight Hours MRR/SDR
Preflight Service Phase Overhaul Special Total	0.00 0.00 0.00 0.00 0.00	0.00 0.24 2.29 0.07 1.24
Corrosion Detected Preflight Service	0.00	0.00
Phase Overhaul Special Total	0.00 0.07 0.00 0.00 0.07	0.13 0.00 0.00 0.00 0.13
Fail-Safe Damage Failures Service Damage Production Defects	0.00 0.00 0.00 0.00	0.09 0.09 0.00

AILCHAFT TYPL: MYRRID

AIRCHAFT SERVICE LIFE: 60000 MOURS

SUMMERS OF STRUCTURAL ELEMENT: #56-SEB-FMU

NUMBER OF AIRCRAFT IN PLAST:

NUMBER AND TIME TO INITIATION OF AIRCRAFT DEFECTS

E PRODUCTION DEFECTS		- 1			GF IMEDECTION		O-LEVEL SPECIAL				• 0	EVEL OF INSPECTION	•	 ۵ و م	• u		PK00	0004	32000	1.246];1555455	RESIDENCE STARROTH FURIS FAIL-SAFE STARAGE MO-
SERVICE DA-AGE		→	56723	35308	INCPECTION AT MACH OF INCPECTION	S Designation of the second of	C-LEVEL	e*		• 0	3	NIMBEG AND AVEA OF COMPOSTON DEFECTS INTECTED AT CACH LEVEL OF INSPECTION	C-LEVEL	m cc v	4 4	00°4	1800	1000	9964	1	RESILUC: STA
30150a505		- C .	5000	44121		אם וביינות כי כי בכת	73657-0		2	• 0	ę,	EA NF COMPOSTON UE			• (•	u t r	P 4	, t.	04b0015b: 0 005; 0075	n
	FIAST CHRON		ULOLE I	43033	į	A WASER A	T=FENET		с •	a !	• •	THE CITY PARTY.				4 4	INSPECTION INTERVALS(HPS)	ic (ñ	AUMBER OF SPECIAL INSPECTIONS CONDUCTED: NUMBER OF STRUCTURAL MODIFICATIONS: CSTIMATED ELEMENT TYPE FAILURE ALT: SANDE AND: 7.5%-14/H- ESTIMATED ELEMENT TYPE FAILURE ATE: SANDE ATE: DAMPE STO. DEV. SAMPLE DRK. LOT. MEMNIN N. 40 SAMPLE DRK. LOT. MEMNIN CURVE HY CONSTILLE ATE: DAMPE STO. DEV.	STRUCTURAL FAILURES
		OCCURRENCES	FIN (HES)	AVE(MRS)					OCCURRENCES		4V6(14)			JCCURRENCES	HIN (50. IN)	MAA (SG . IN) AVG (SG . IN)	INSPECTION	INITIAL	SHORTEST	NUMBER OF MUMBER OF MUMBER OF MUMBER OF ESTIMATED ESTIMATED COMM. IST.	

AVERAGE FLIGHT CPACKS 1,505 [...] , ... , ... , ... AVERAGE PRESSURE GRACKS ,561 ,551 ,... , ...